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Electrical Contracting

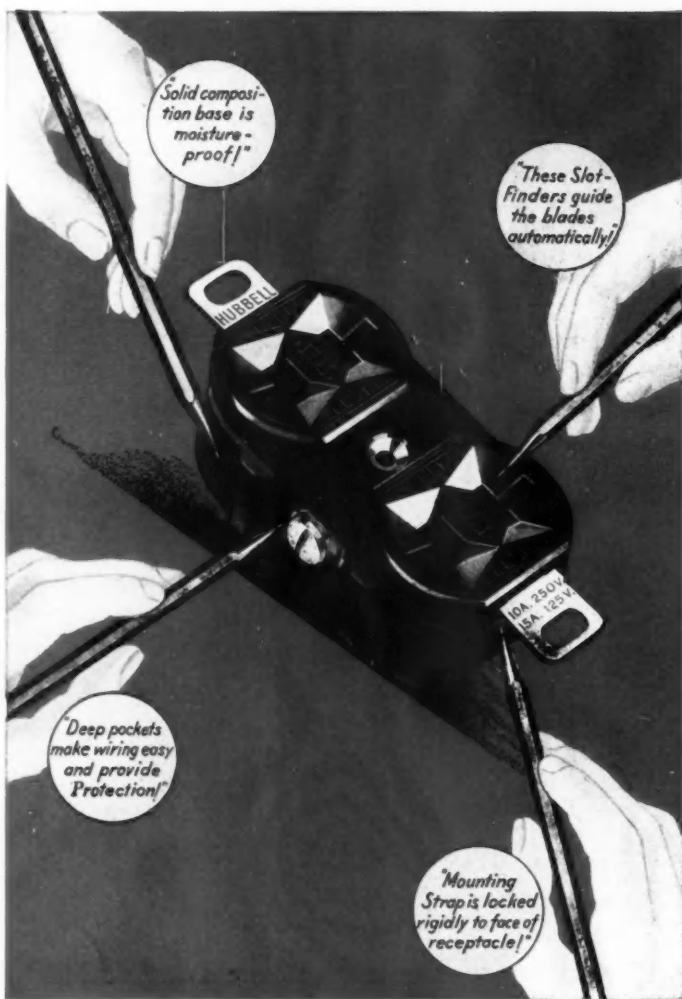
January 1931

With Which Is Incorporated
The Electragist

... the
people who will rebuild
business are the execu-
tives who adopt firm
policies and accept no
deviation...



National Electric Products Corporation
National Metal Molding Division
Pittsburgh, Pa.



The distinct advantages offered in this new Hubbell Convenience Outlet make it an outstanding development in wiring devices. The enthusiastic approval of architects, engineers, contractors and dealers warrant the statement that the modern trend is toward its popular acceptance wherever better wiring devices are installed.

If you have not received a sample for personal inspection,—send for one now that you may familiarize yourself with its many features of superiority. Its easy wiring facilities, modernistic Bakelite face, solid composition base, one piece, phosphor contact spring, will recommend it immediately to your better judgment.

Main Office: Bridgeport, Conn.

Boston, Mass.
176 Federal St.
Atlanta, Georgia
136 Marietta St.
H. C. Biglin
New York City, N. Y.
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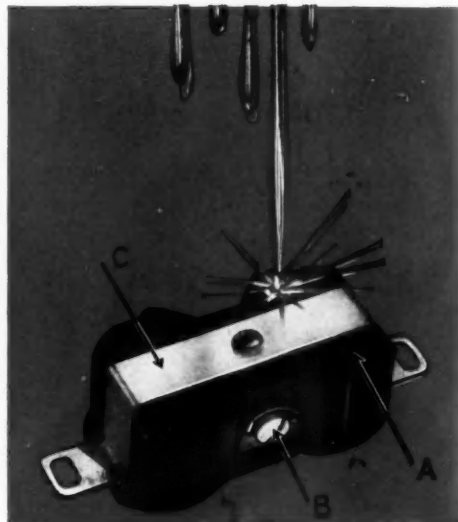
Harvey Hubbell Co. of
Canada, Ltd.
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HARVEY HUBBELL, INC.
BRIDGEPORT, CONNECTICUT

*The Modern
Trend~
is toward the #7575
Hubbell Receptacle.
because of its dis-
tinct advantages.*



- A.—A new, moisture-proof, composition base eliminates the fibre back.
- B.—Binding plates and screws are in deep pockets with heavy composition side bosses, protected and insulated from side of wall and box. Larger screws provide for No. 10 wire. Tapped bushing for plate screw is grounded to mounting strap, grounding the plate.
- C.—Mounting Strap is locked to the face of the plate. Provides greater strength and rigidity.



One-Piece Contact Spring of phosphor bronze guarantees perfect alignment and positive electrical connection.

HUBBELL
convenience **OUTLETS**

Electrical Contracting

VOLUME 30

With which is incorporated The Electragist

NUMBER 3

CONTENTS FOR JANUARY, 1931

John Wise.....	5
A \$36,000,000 Opportunity in Specialty Wiring During 1931.....	6
Cutting Conduit Ahead of Construction....	8
How to Prepare Accurate Estimates by Ray Ashley.....	10
Motor Horsepower and Speed Ratings.....	13
Equipment Speeds Production for Motor Specialists by J. Roland Stolzenbach.....	14
Hoists Out Field Windings.....	16
A Few Minutes a Day Keeps Stock Record.....	17
John Kuhlemeyer Tells About a \$4000 Profit that Turned Out to be a \$500 Loss.....	18
Voltage Drop.....	20
Editorials.....	22
A.E.I. Activities.....	24
Contracting News.....	30
Suggested Resale Prices.....	35
Practical Methods.....	104
Manufacturers' News.....	110
Index to Advertisers.....	114

Resale Price News

Only minor price changes, both up and down, have been noticeable during the past month. Price reductions have been made in:

Cords
Plugs
Lag screws
Steel taped parkway cable, larger sizes.

Price adjustments have been made in contact boxes, fittings, sundries, receptacles, door switches and openers, solder paste, lead and rubber commercial wire and cable.

Price increases have been made in some porcelain receptacles, T-slot receptacles, pendant switches, larger sizes of n.c. rubber covered wire, c.m. cable and weather-proof wire.

Killark fuse cabinets, Torrid plugs, Wadsworth 100 amp. cabinets, conduit pennies, canopy receptacles, remote control switches and ace time switches have been added to the listings.

A recent survey shows that more than 85 per cent of the contractors using the resale price service, use it for time and material billing.

Published Monthly by

ELECTRICAL TRADE PUBLISHING COMPANY

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ON YOUR NEXT JOB— AND EVERY OTHER JOB USE

RACO PRI-OUT BOXES



**HERE'S
WHY**

**Sold only thru
Your Jobber**

RACO PRI-OUT BOXES SPEED INSTALLATION and Provide Safety for Wiremen without additional cost and with the following advantages:

- (1) Wiremen do not injure fingers with Pri-Out Boxes. Discs do not have to be knocked inwardly and broken off with fingers as in old type boxes.
- (2) The slot in Pri-Out Boxes permits prying tool to be inserted and the disc pried out.
- (3) Pri-Outs are set flush with the box permitting $\frac{1}{8}$ " more room on inside of the box for wiring.
- (4) All these features over our regular old style line of knockout boxes at no additional cost.

NOTICE
"RACO" PRI-OUT Boxes are covered by United States Patents U. S. No. 1709187, Re-issue No. 17765, Canadian No. 289,335 and other patents pending. Owned by the Roach-Appleton Mfg. Co. Look for patent numbers or date which appears on products of licensed manufacturers.

PRI-RACO OUTS
TRADE MARK

One Pry Does It!

First again with a valuable improvement in design of outlet box. One pry with any prying tool flips the disc out—not into the box. Pri-Outs are another big triumph for "Raco" Products—"Raco" Pri-Outs are knockouts. Now you can get the entire line of RACO Boxes with this exclusively patented feature. Insist upon RACO Pri-Out Boxes from your jobber.



ROACH-APPLETON MFG. CO.

SOUTH BEND, INDIANA

SELLING

IN searching about for an editorial program for 1931, we asked ourselves and others in what way ELECTRICAL CONTRACTING could be of greatest benefit to the electrical contractor. The answer was, Help him to sell.

So the dominant note in the 1931 issues of ELECTRICAL CONTRACTING will be selling. This does not mean that management, installation practice, estimating or accounting are to be abandoned. In fact, the plans call for more material of this kind.

For some time it has been contended that because contractors, as a rule, are graduate mechanics their approach to their work is logically not a selling one but one that is mechanical.

In many ways that argument sounds more like an excuse, than a reason. There are far too many examples of successful salesmanship on the part of electrical contractors to permit one to believe that selling is too much to be expected of the group.

• • •

BECAUSE of their customer contact and their closeness to the work electrical contractors should be the logical and most economical outlet for commodities such as lighting equipment, motors, ventilating equipment, sound apparatus, etc. Many contractors have been discouraged from trying to sell such equipment because of direct competition and the lack of help from manufacturers. We believe, however, that these conditions are changing and that manufacturers are

waking up to the fact that the contractor offers a worthwhile outlet for fixed equipment. Where it has been given a fair trial, the results have been well worth the effort.

The first part of our selling program, therefore, will be the further development of the subject of specialization through case studies and the analysis of opportunities in several fields.

Next the contractor must be able to sell his service in competition with price. This can and is being done all the time. How? That will be the basis of the next part of our program—showing by surveys how contractors in every part of the country are successfully meeting these difficulties.

• • •

FINALLY we intend to scour the field for selling methods. Field men will travel thousands of miles in 1931 interviewing contractors. Wherever a successful sales method is found it will be given publicity in the columns of ELECTRICAL CONTRACTING.

Thus, by case studies, by field investigation and by questionnaire studies, ELECTRICAL CONTRACTING expects to help its readers improve their selling methods and become better outlets for electrical materials and equipment.

An aggressive, balanced sales program such as proposed, is a new idea in construction industry education. ELECTRICAL CONTRACTING believes that this is not only worth while but is more necessary this year than ever before.



ANACONDA WIRING PRODUCTS

Rubber-Covered Wire
ABC Armored Cable
Flexible Steel Conduit
Duraduct Loom
Durax Sheathed Cable
Flexible Cords

Made in two of our twelve
mills . . . by Anaconda,
the Standard of Quality!

ANACONDA WIRE & CABLE COMPANY

GENERAL OFFICES: 25 BROADWAY, NEW YORK
CHICAGO OFFICE: 20 NORTH WACKER DRIVE

Sales Offices in Principal Cities

*Anaconda safeguards quality
from mine to consumer—pro-
vides a nation-wide service,
prompt, dependable, complete.*



JANUARY, 1931

BIG GAME

By JOHN WISE
The Successful Contractor

I SAW one of those African lion-hunting movies last night that made a great impression on me. The hunters wanted a lot of close-up motion pictures that would show how the big cats would look if they were playing around in your back-yard.

The idea was fine, but getting closer to the lions than anyone had ever been before was a large order. At last one of the hunters had a real idea. He and the rest piled on the truck with the cameras and drove out on the veldt till they sighted a bunch of lions. Then they took a big tire casing and rolled it a-flying right towards the animals. It came to a halt about half way between the quarry and the truck.

Immediately the lions charged the tire. They batted it and clawed it, and one old girl tried to bite off a piece. Just as they were beginning to lose interest because the teething ring wouldn't fight back, one of the boys heaved out a big chunk of meat and bone, which landed about fifty feet from the truck.

The lions hesitated a bit, but the meat smelled so good they finally tackled it, and when they found it was A No. 1 prime western, the job of making them feel at home was well started. Right there the boys showed they knew their stuff. They didn't start grinding the cameras at once, but repeated the free lunch party three days running, and from then on the lions would gallop after the truck like hungry puppies and the boys



got all the close-ups they wanted. In fact, the lions got so bold they all but boarded the truck.

That was one of the finest examples of building customer confidence I ever heard of. To those hunters, lion pictures meant big money, and to get the pictures there could be no carelessness. If the truck had back-fired or if someone had sprung a bottle of warm soda, the lions would have dashed for home, or maybe they would have jumped the truck and grabbed a meal of light and dark meat, and I would never have seen that picture.

The electrical contractor is in the same fix as those hunters. He can't build a big business without customer confidence. It's a grand and glorious feeling when a customer won't have anyone on the job except yourself. And how did you get him in that state of mind? Not by splitting his baseboards, or putting junk in his walls that will go bad in six months, or by slipping him a bargain on one job and robbing him on the next.

FIRST, get his interest, then give him a real job at the right price and stay with him through thick and thin; keep quality up and trouble down, and you'll have his name in your ledger till the ink fades.

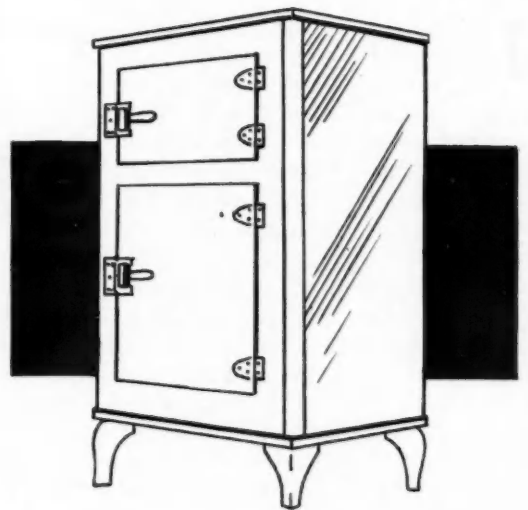
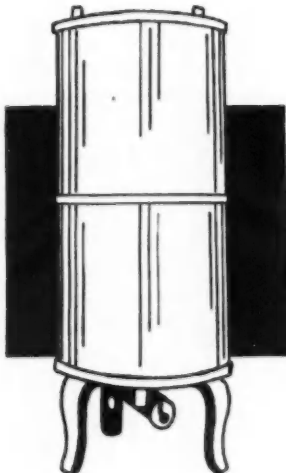
A \$36,000,000

THERE is a market for \$35,877,200 worth of wiring for major appliances and equipment during the year 1931, presenting a real opportunity to contractors who will specialize in these classes of work. This figure is based on estimated sales of this equipment during the year, and as present conditions were taken into consideration, none of the figures are over optimistic. The wiring prices are averages, taking into consideration various types of construction and requirements. None of the prices given include the prices of appliances

in Specialty

Water Heaters

Estimated number to be sold in 1931.....	55,000
Estimated average price for installing.....	\$20.00
Resulting amount of wiring.....	\$1,100,000

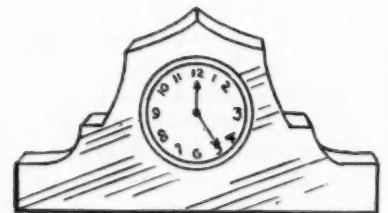


Refrigerators

Estimated number to be sold in 1931....	1,000,000
Estimated average price of circuit for each	\$11.00
Resulting amount of wiring.....	\$11,000,000

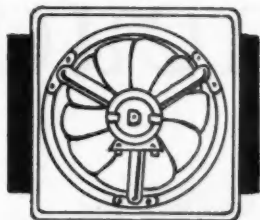
Clocks

Estimated number to be sold in 1931	800,000
Estimated average price of outlet for each	\$5.00
Resulting amount of wiring..	\$4,000,000



Opportunity

Wiring During 1931

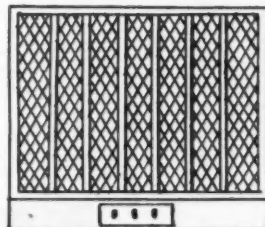


Ventilating Fans

Estimated number to be sold in 1931—	
Residential	25,000
Commercial	75,000
Estimated average price for installing.....	\$25.00
Resulting amount of wiring.....	\$2,500,000

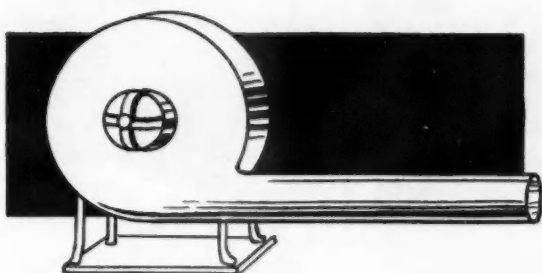
Room Heaters

Estimated number to be sold in 1931.....	50,000
Estimated average price for installing.....	\$35.00
Resulting amount of wiring.....	\$1,750,000



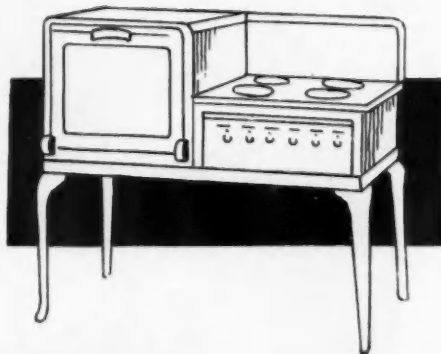
Oil Burners

Estimated number to be sold in 1931.....	151,360
Estimated average price for electrical installation..	\$20.00
Resulting amount of wiring.....	\$3,027,200



Ranges

Estimated number to be sold in 1931.....	250,000
Estimated average price for installing.....	\$50.00
Resulting amount of wiring.....	\$12,500,000





By cutting all conduit ahead of construction, conduit benches can be permanently located where the men can work with the greatest efficiency.

Cutting Conduit Ahead of C

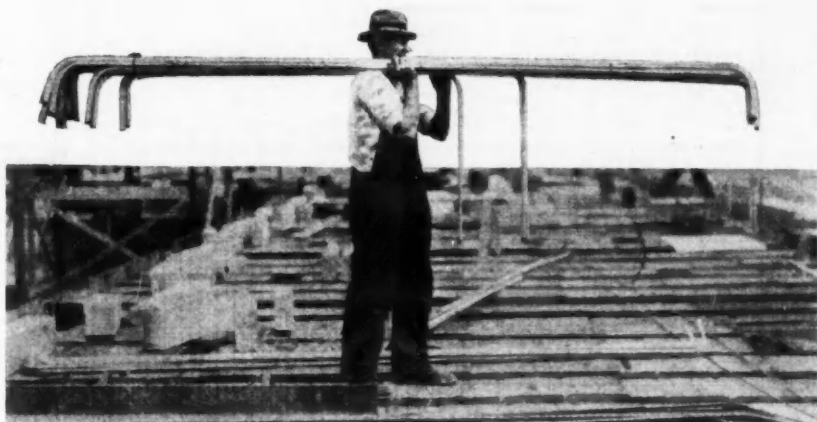


A cutting bench permits the assembly of complete runs with a minimum of effort. They are then bundled together for each section and tagged.



Prior to the laying of the pans the outlets are spotted and the boxes installed.

When the steel pans are in place the bundles of conduit are brought up to the floor and distributed to their respective locations.



CONSTRUCTION



It is then a short job to connect the conduit to the boxes and make ready for the concrete.

All conduit is cut and bent a trifle long allowing for a slight deviation from the plans. It is easy to shorten conduit by making a slight bend while if the conduit is short a re-cut would be necessary at a considerable loss of time.

THE fluctuation of work found on every construction job is kept to a minimum by the Kelso-Burnett Electric Co., Chicago, Ill. When there is a slump in installation work on a job the men are kept busy preparing conduit for the next floor. When that floor is ready they can devote all of their time to the installation, thus quickly getting out of the builder's way.



[illegible]

The first part of a series of articles showing a successful method of estimating which is extremely comprehensive, yet easy to check or revise accurately

*Chief Estimator and Engineer
Electrical Survey Bureau, Inc., Chicago*

The principal sheets required for larger jobs are:

- Electrical Contracting, January, 1931*

3. Feeder take off sheet.
4. Branch Power wiring sheet.
5. Low Tension take off sheet.
6. Sheets for listing and pricing equipment.
7. Summary sheets.
8. Final bid sheet.

in future articles to appear in ELECTRICAL CONTRACTING.

The keeping of records or making up of the "Title Sheet" is a subject by itself and will be discussed in a later article.

11

MOTOR

HORSEPOWER and SPEED Ratings



Standard horsepower and speed ratings for motors as given by the National Electrical Manufacturers' Association. Additional horsepower and speed ratings will appear in a future issue of Electrical Contracting

SMALL POWER MOTORS

Direct Current
Standard load and speed ratings

Ratings Brake Hp.	Approx. Full Load R.p.m.
1/4	1725
1/2	1725
3/4	1725-1140
1	1725-1140
1 1/4	1725-1140
1 1/2	1725-1140
1 3/4	1725-1140
2	1725
1/12	1725
1/20	1725

SMALL POWER MOTORS

Alternating Current
Standard horsepower and speed ratings

Brake Hp. Rating	—60 Cycle Circuit—		—25 Cycle Circuit—	
	Syn- chronous R.p.m.	Approx. Full Load R.p.m.	Syn- chronous R.p.m.	Approx. Full Load R.p.m.
1/4	1800	1725	1800	1425
1/2	1800	1725	1800	1425
3/4	1800	1725	1800	1425
1	1800	1725	1800	1425
1 1/4	1800	1725	1800	1425
1 1/2	1800	1725	1800	1425
1 3/4	1800	1725	1800	1425
2	1800	1725	1800	1425
1/12	1800	1725	1800	1425
1/20	1800	1725	1800	1425

LARGE POWER MOTORS

Direct Current
Standard horsepower and speed ratings for open and semi-enclosed type continuous duty constant speed motors

Horsepower and Speed Ratings for General Application				
Hp.	R.p.m.	R.p.m.	R.p.m.	R.p.m.
1/4	1750	1150		
1	1750	1150		
1 1/4	1750	1150		
2	1750	1150	850	
3	1750	1150	850	
5	1750	1150	850	
7 1/2	1750	1150	850	
10	1750	1150	850	
15	1750	1150	850	
20	1750	1150	850	575
25	1750	1150	850	575
30	1750	1150	850	575
40	1750	1150	850	575
50		1150	850	575
60		1150	850	575
75		1150	850	575
100			850	575
125			850	575
150			850	575
200			850	575

(Direct Current—Continued)

Horsepower and Speed Ratings for Direct Connection Only			
Hp.	R.p.m.	R.p.m.	R.p.m.
50	1750		
60	1750		
75	1750		
100	1750	1150	
125	1750	1150	
150	1750	1150	
200	1750	1150	

Standard horsepower and speed ratings for 2 to 1 open and semi-enclosed type, continuous duty adjustable speed motors

Hp.	R.p.m.	R.p.m.	R.p.m.
2	1150-2300	850-1700	
3	1150-2300	850-1700	
5	1150-2300	850-1700	
7 1/2		850-1700	
10		850-1700	
15		850-1700	
20		850-1700	575-1150
25		850-1700	575-1150
30		850-1700	575-1150
40			575-1150
50			575-1150

The standard horsepower and speed ratings for continuous duty adjustable speed motors and for machine tool and similar duty motors

Cont. Duty Hp.	Mach. Tool & Similar Duty Hp.	3 to 1 Speed Ratio	
		R.p.m.	R.p.m.
1 1/4	2	700	2100
2	3	650	1950
3	5	650	1950
5	7 1/2	600	1800
7 1/2	10	600	1800
10	15	550	1650
15	20	500	1500
20	25	500	1500
25	30	500	1500
30	40	500	1500
40	50	400	1200

Cont. Duty Hp.	Mach. Tool & Similar Duty Hp.	4 to 1 Speed Ratio	
		R.p.m.	R.p.m.
1 1/4	1 1/4	600	2400
2	1 1/4	600	2400
3	1 1/4	500	2000
5	1 1/4	500	2000
7 1/2	2	500	2000
10	3	500	2000
15	5	450	1800
20	7 1/2	450	1800
25	10	300	1200
30	10	400	1600
40	15	300	1200
50	15	400	1600
60	20	300	1200
75	20	400	1600
100	25	300	1200
125	25	400	1600
150	30	300	1200
200	30	400	1600
250	40	300	1200
300	40	400	1600
400	50	300	1200

LARGE POWER MOTORS

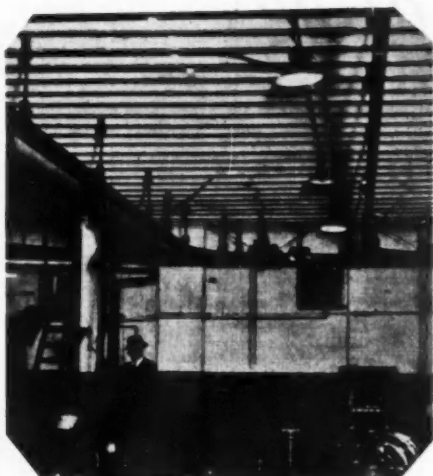
Single Phase
Standard horsepower and speed ratings for open and semi-enclosed continuous duty constant speed motors

60 Cycles		25 Cycles	
Hp.	R.p.m.	Hp.	R.p.m.
1/4	1200	1	1500
1	1800-1200	1	1500
1 1/4	1800-1200	1 1/4	1500
2	1800-1200	2	1500-750
3	1800-1200	3	1500-750
5	1800-1200-900	5	1500-750
7 1/2	1800-1200-900	7 1/2	1500-750
10	1800-1200-900	10	1500-750
15	1800-1200-900	15	1500-750
20	1800-1200-900	20	1700-750
25	1800-1200-900		
30	1800-1200-900		
40	1800-1200		
50	1800		

*For direct connection only.
Speeds given are synchronous speeds.



EQUIPMENT



The shop is equipped with a monorail system, with which a job can be picked off the truck and easily moved to any desired location.



Each man has an individual bench and equipment test board. There is plenty light, both daylight and artificial. We find that this individual layout helps each man to concentrate on his own particular work.



Each bench is equipped with a soldering iron heater, a steel drawer for tools, a vise, a portable light and gas and air for torch use.

Proper equipment is a worth while investment. It speeds up production and it is conducive to better work. Also good tools and clean light surroundings improve the morale of the employees

By
J. ROLAND STOLZENBACH
*President, Roland Electric Co.,
Baltimore, Md.*



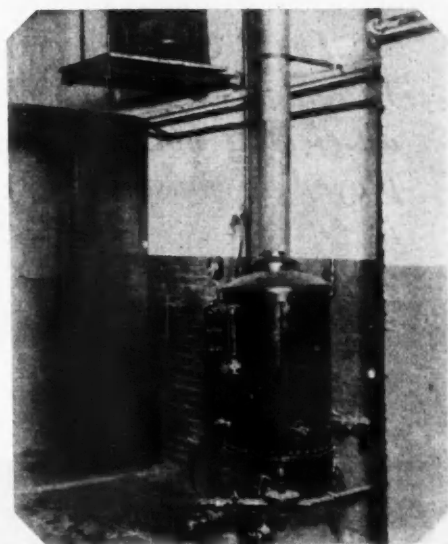
The machine shop section is equipped with three lathes of different size, a shaper, drill press, power hacksaw, emery wheel, a twenty-eight ton press for tightening commutators straightening shafts, etc., in addition to the other shop facilities.

Speeds Production for Motor Specialists



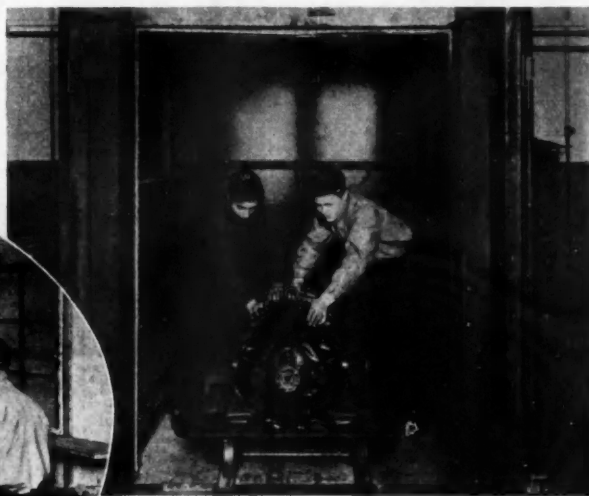
ASIDE from the tools and the equipment mentioned the shop is equipped with four different sized pull-in gear pullers, a growler for D.C. work, a growler for A.C. work, a full line of A.C. test meters, an undercutting machine, a turning device for direct driven generators, and an insulation cutter.

In addition to this department the shop includes a fractional horse-power department where small motors are re-built. This department is equipped with machinery enabling it to be so managed that it does not interfere with the routine of the larger repair work. Machinery in this department includes a test outfit, a bake oven, a lathe, and numerous tools. The men are specially trained for this class of work. There is also a carbon department in which all carbon brush work is confined.



A high pressure cleaning boiler for cleaning motors. By spraying a cleansing solution with high pressure steam, it is possible to reach all crevices which are impossible to reach with the cleansing brush.

Our two coil winding machines direct driven with armature control. The form which was designed in our own shop is of the adjustable type and saves the time of building wooden forms. Boys are especially trained for this work.

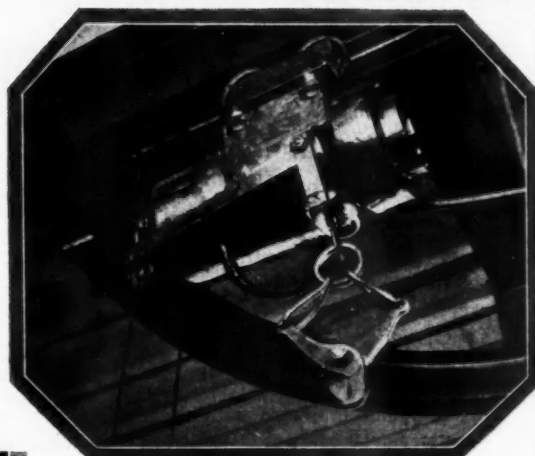


An important part of the equipment is an indirect fired baking oven with automatic temperature control. This is equipped with a track and a truck, which facilitates the handling of baking jobs. Overhead is an electric hoist used for handling the work. The shop is also equipped with a dipping tank which will accommodate a one hundred horse-power stator.



Hoists Out FIELD WINDINGS

The J & H Electric Co., Providence, R. I., utilizes an electric hoist, such as employed in most motor shops, in stripping motor stators. This method has been found to be fast and economical and does not damage the stator

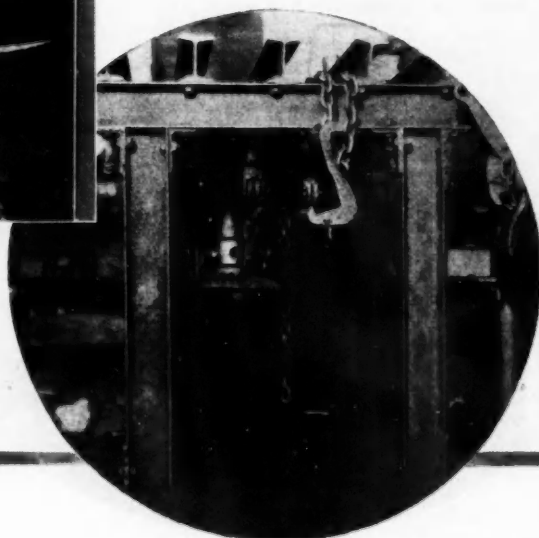


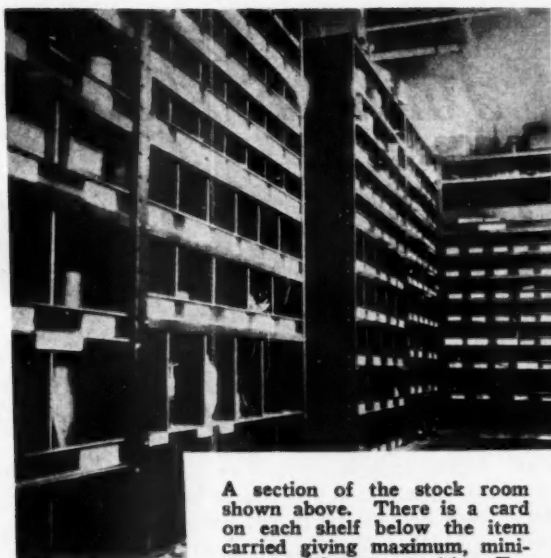
A clamp so designed as to grip a field coil is attached to the cable of the electric hoist so that it can be raised or lowered at the will of the operator.



The stand on which work is placed is constructed of I beams. Three clamps hold the motor frame firmly on the stand. These clamps are chained to a house mover's jack, which has been inverted and set on the bottom of the stand. By expanding the jack the chain clamps are drawn down holding the motor frame solidly in place.

The field coils are cut on one side of the motor and then the frame is clamped with the cut side down to the specially constructed stand. The clamp is then lowered, the loop ends are gripped and the operator starts the hoisting motor, thus drawing out the winding.





A section of the stock room shown above. There is a card on each shelf below the item carried giving maximum, minimum, and danger quantities. Example: No. 16 pull socket
 maximum 10
 minimum 5
 danger 7

When the amount of stock on hand reaches the danger point an order for more material is placed.

All material leaving the stock room is recorded in triplicate, with copies for the customer, foreman on the job, and office.



The customer's copy, except in case of a cash sale, goes into the job envelope so that the bookkeeper can properly charge all material used.

A few minutes a day **KEEPS**



The files contain a separate card for each item carried and sales are subtracted from the stock listed on the card. To insure accuracy, a list of 20 articles are made up each day and given to a man in the stock room. He records the amount on hand of these items and this list is checked with the office files.

Stock Record

A few minutes work every day in checking stock saves Warren-Bigelow Electric Co., Worcester, Mass., a big unpleasant annual job and enables them to check their stock every three months so that errors may be more easily corrected



John Kuhlemeyer tel

\$4000 Profit th

DID you ever hear a contractor who worked out of his home or garage admitting that he had such a thing as overhead?

When they get paid for a job they figure up how much the materials cost and how much they had to pay their men and if anything is left it's profit.

I shall never forget the contractor who told me one night that he had

made \$4,000.00 profit the past year. I said to myself, "this fellow must be pretty good. I wonder what he does with all his money?" But he didn't know. It wasn't in the bank and he certainly didn't have anything to show for it, nor did he have a very clear idea of where it went.

Upon investigation it appeared that he had an overhead of \$3,000.00 leaving \$1,000 out of which he had to pay himself. This poor fellow had slaved hard days, nights and Sundays and had put in something like 3,000 hours of work which meant that he had received the magnificent wage of 33⅓ cents an hour.

It seems, however, that this fellow actually took home to his family \$1,500.00 during the year which was all used up in living expenses. It doesn't take very much figuring to show that at the end of the year he had spent \$500.00 more than he took in—that's net loss.

The picture the contractor saw was like this:

Total income for year	\$11,000.00
Total cost of labor and material	7,000.00
Profit	4,000.00

When, as a matter of fact, it was really like this:

Total income for year	\$11,000.00
Total cost, labor and material	7,000.00
Overhead	3,000.00
Living Expenses	1,500.00
Loss	\$500.00

Every time I tell this story somebody asks, "What is this thing you call overhead, anyway?"

Well, suppose you were a surgeon, called to attend a man who had just broken his leg. And suppose lying there helpless he looked up at you and said: "I'm all right, Doc, there's nothing wrong with me." Your first thought, after setting the fracture, would be to examine his head. For a broken leg is an obvious injury and the patient is out of action until a cure is effected.

On the other hand, a man may be suffering from arthritis, chronic appendicitis, varicose veins and a floating kidney, yet still carry on both socially and commercially, all the while insisting cheerfully that he "never felt better in his life." Only when he is persuaded to allow a check-up can these invisible enemies be proven and eliminated.

Overhead is the same sort of animal. With large operators it stands out like the broken leg, forcing attention and action by its prominence and seriousness. But in the case of the small contractor, overhead has more disguises than an amateur detective and its tread is so stealthy a man may not detect its presence for years.

WHY does a man go in the electrical contracting business if not to make money, with which to house, clothe, feed and amuse himself and family and to rear and educate his children. He cannot dodge this duty towards mamma and the kids, nor does he wish to; but if he is to do the job right he must face the fact that merely working hard and taking in money doesn't mean making money—far from it.

Money made, or profit, can be only one thing and that is dollars received over and above every penny paid out or sacrificed in the doing of the work and the transaction of business. Having no source of income except wiring, the contractor must pay not only his business expenses but all personal expenses out of the total received during the year. Here is where Old Man Overhead, as related to gross profit, enters with a bang. Said gross profit must be sufficient to pay ALL expenses outside of labor and material or Mr. Contractor is in the red.

Now you say: "If this overhead is so important and has such effect on a man's business, why do so many small contractors say they have no overhead?" The answer is that the man's prime cost is staring him right in the face and gets all his attention, while other items equally important are overlooked through being in the background. It works out like the case of the pushcart

tells about a that turned out to be a \$500 Loss

peddler in the old days with his load of fruit. The biggest boy in the neighborhood crowd would grab something from the cart and run, then while the peddler chased him, all the little shavers would dash up and help themselves.

NOW we come to the question, "What is this overhead that is so important in the scheme?" As stated before there are about forty-five items in the list, all of them liable to visit any contractor, regardless of size, and twenty-five of them practically certain with the small business. A typical example will show why so many men do not recognize and allow for various items.

"I operate from my home" one will say, "so I can't have any overhead. I have to pay rent, light, phone, heat, etc., anyhow. I use my own car for the business and the rent of the garage is included in that of the house. I don't pay myself any salary, my wife keeps the books and no advertising is done," and so on.

Then we start to check up, and in practically every item there is found overhead with a capital O, with a substantial increase in expense, wear and tear, and depreciation. He doesn't pay himself any salary but wears out the "No Sale" button financing his private life with sums worthy of a much larger business. He pays out a large yearly amount in gas, oil and repairs on the car, not to mention insurance and depreciation. He entertains customers and donates and subscribes to many funds aside from charity for no other reason than advertising his business.

He may think he has no selling expense, forgetting the endless chasing after business, of which only a portion is secured. Very few men operate without one or more signs and they must have stationery and cards. Tools, ladders, equipment and accessories form a substantial item. In the line of financial items there are dues, interest, special discounts and insurance.

I want no one to think I am trying to pile up as much

overhead for the contractor as possible. On the contrary, my object is to have him recognize and face every dollar he spends for it, so he can control it. In fact, he must find a way to decrease it in most cases; because if it gets too high, his bids will be out of line and his volume and profit will both suffer.

To emphasize this let us glance at the illustration below which shows the contractor's volume in the form of a big apple pie. There are the three cost factors, which we will say for argument's sake are as follows: Material, 30 percent; labor, 35 percent; and overhead, 25 percent, leaving a profit of 10 percent. If the three cost factors are safeguarded and kept normal, profit remains intact. But should they increase, it is fatal, because there is only one place they can eat into and that is the life blood of the business—profit. Should each increase 5 percent, the latter is more than wiped out.

Naturally, the only part of the pie the contractor can eat is the profit, so he should strain every nerve to make his part larger.

The small contractor with apparently no overhead has more in proportion to his business than the giant concern.



VOLTAGE DROP

Tables for quickly determining the size of wire for various loads and lengths of runs in branch, power and feeder circuits to give an allowable voltage loss, as compiled by the Electric Association, Chicago, Ill.

Wire Size Required for Branch Circuits to Give a 2 Volt Loss

(Length of Wire for a circuit is double the length of run)

WATTS PER CIRCUIT

	100	150	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
30	14	14	14	14	14	14	14	14	14	14	14	14	14	12	12	12	12	10	10	10	10	10
40	14	14	14	14	14	14	14	14	14	14	14	12	12	12	10	10	10	10	10	8	8	8
50	14	14	14	14	14	14	14	14	14	12	12	12	12	10	10	10	10	8	8	8	8	8
60	14	14	14	14	14	14	14	14	12	12	12	10	10	10	10	8	8	8	8	8	6	6
70	14	14	14	14	14	14	14	12	12	12	10	10	10	8	8	8	8	8	6	6	6	6
80	14	14	14	14	14	14	12	12	12	10	10	10	8	8	8	8	8	6	6	6	6	6
90	14	14	14	14	14	12	12	12	10	10	10	10	8	8	8	6	6	6	6	6	4	4
100	14	14	14	14	14	12	12	12	10	10	10	8	8	8	6	6	6	6	6	4	4	4
110	14	14	14	14	14	12	12	10	10	10	10	8	8	8	6	6	6	6	4	4	4	4
120	14	14	14	14	12	12	10	10	10	10	8	8	8	6	6	6	6	4	4	4	4	4
130	14	14	14	14	12	12	10	10	10	8	8	8	6	6	6	6	4	4	4	4	4	4
140	14	14	14	14	12	12	10	10	8	8	8	8	6	6	6	6	4	4	4	4	4	4
150	14	14	14	12	12	10	10	10	8	8	8	6	6	6	6	4	4	4	4	4	4	2

THIS table shows the wire size required for 115-volt circuits with various lengths of run, based on a drop of two volts between the panel board and the outlets.

It is difficult in branch circuits, at least with present wiring methods, to use larger than No. 8 wire because of the difficulty of handling in conduit. Where the proper wire size for a proposed installation, according to

this table, is larger than No. 8, it is usually best either to provide more circuits with less load, or to relocate the distribution centers to decrease the lengths of the circuit runs.

The difference in the cost of wiring with No. 12 instead of No. 14 is so slight, and the advantages so marked that No. 12 is frequently used as the minimum size for branch circuits.

Length of Circuit or Feeder Run to Give 3 Volt Loss

LOAD		WIRE SIZE AND AMPERE CAPACITY—RUBBER INSULATION																							
Ampere	K. W. at 220 Volts	10 B. & S. 10,380 C. M.	8 B. & S. 16,510 C. M.	6 B. & S. 26,250 C. M.	4 B. & S. 41,740 C. M.	3 B. & S. 52,630 C. M.	2 B. & S. 66,370 C. M.	1 B. & S. 83,680 C. M.	1/0 B. & S. 105,500 C. M.	2/0 B. & S. 133,100 C. M.	3/0 B. & S. 167,800 C. M.	4/0 B. & S. 211,800 C. M.	250,000 C. M.	300,000 C. M.	400,000 C. M.	500,000 C. M.	600,000 C. M.	700,000 C. M.	800,000 C. M.	900,000 C. M.	1,000,000 C. M.				
		25A	35A	50A	70A	80A	90A	100A	125A	150A	175A	225A	250A	275A	325A	400A	450A	500A	550A	600A	650A				
25	5.5		92	146	232	292	369	465																	
30	6.6		76	122	193	244	307	387	488																
35	7.7		66	104	166	209	263	332	419	528															
40	8.8			91	145	183	230	291	366	462	583														
50	11.0			73	116	146	184	232	293	370	466														
60	13.2				97	122	154	194	244	308	388	490													
70	15.4				83	104	132	166	209	264	333	420	496												
80	17.6					91	115	145	183	231	291	367	434	521											
90	19.8						102	129	163	205	259	327	386	463											
100	22.0							116	147	185	233	294	347	417											
110	24.2								133	168	212	267	316	379	505										
120	26.4								122	154	194	245	289	347	463										
125	27.5								117	148	186	235	278	333	444										
130	28.6									142	179	226	267	321	427	534									
140	30.8									132	166	210	248	298	397	496									
150	33.0									123	155	196	231	278	370	463									
160	35.2										146	184	217	260	347	434	521								
170	37.4										137	173	204	245	327	408	490								
175	38.5								133	168	198	238	278	317	397	476									
180	39.6									163	193	231	269	309	386	463									
190	41.8										155	183	219	262	335	439	512								
200	44.0										147	174	208	248	278	347	417	486							
210	46.2										140	165	198	235	331	397	463								
220	48.4										134	158	189	223	316	379	442	505							
225	49.5										131	154	185	220	309	370	432	495							
230	50.6											151	181	214	242	302	362	423	483						
240	52.8											145	174	211	289	347	405	463	521						
250	55.0											139	167	222	278	333	389	444	500						
260	57.2												160	214	267	320	374	427	481	534					
270	59.4												154	206	257	309	360	412	463	514					
275	60.5												152	202	253	303	353	404	455	505					
280	61.6													198	248	298	347	397	446	496					
290	63.8														192	239	287	335	383	431	479				
300	66.0														185	231	278	324	370	417	463				
310	68.2														179	224	269	314	358	403	448				
320	70.4														174	217	260	304	347	391	434				
325	71.5														171	214	256	299	342	385	427				
330	72.6															210	253	295	337	379	421				
340	74.8															204	245	286	327	368	408				
350	77.0																198	238	278	317	357	397			
360	79.2																193	231	270	309	347	386			
370	81.4																188	225	263	300	338	375			
380	83.6																183	219	256	292	329	365			
390	85.8																178	214	249	285	321	356			
400	88.0																174	208	243	278	312	347			
420	92.4																	198	231	265	298	331			
440	96.8																	189	221	253	284	316			
460	101.2																		211	242	272	302			
480	105.6																		203	231	260	289			
500	110.0																		194	222	250	278			
520	114.4																			214	240	267			
540	118.8																				203	231	257		
560	123.2																					223	248		
580	127.6																						216	239	
600	132.0																							208	231
620	136.4																								224
640	140.8																								217
650	145.2																								214

Based on the Formula:
C.M.=21.6xL

L=Distance from switchboard or panel to load center.

I=Amperes load.

21.6=2x10.3—the resistance per mil foot of copper is 10.8

ohms—A constant.

3=Allowed volts loss or drop.



NOTE: For lengths of circuit run less than those given in this table, for each load or wire size, the allowable carrying capacity of the cable is the factor determining the size. For example, with a load of 200 amperes and a circuit length of 100 feet, No. 4/0 wire should be used.

For lengths of circuit run greater than those given in the table, divide the length by two, and using the figure so obtained find the size cable necessary to carry the entire load this half distance. Then the required circular mil capacity to carry the load the entire distance is equal to twice the C.M. capacity or wire size so found. For example, with a load of 230 amperes and a length of 600 feet:

600
—=300 feet, looking up 300 feet in the table a 500,000 C.M. will carry 230 amperes 300 feet with approximately a 3 volt drop, therefore to carry the entire load of 230 amperes the entire distance of 600 feet; 1,000,000 C.M. capacity is required.

Electrical Contracting

With which is incorporated The Electragist

S. B. WILLIAMS, Editor

What of the New Year?

THIS is not a prophecy—it is a statement of fact. 1931 is going to be a good year for the electrical contracting business. Our reasons are as follows:

1. Residential construction has already started to grow and because of housing requirements must exceed 1930.
2. Commercial construction gives evidence of scraping bottom thereby indicating that at least it will not go below 1930.
3. Governmental building will be large in 1931.
4. Co-operative appliance campaigns will bring additional millions in wiring—see page 6.
5. Farm wiring shows indications of equalling, if not exceeding, 1930.
6. A number of new products are to be announced at the first sign of real business improvement.
7. Outdoor lighting will go much further, encompassing golf courses and many new fields.
8. Contractors are better equipped to sell than they were a year ago, having learned many lessons during the past twelve months.
9. The number of contractors who are specializing is increasing, assuring the industry of better and more complete jobs.
10. Labor is more inclined to give a better account of itself with the result that less non-productive labor can be expected.
11. Contractors generally have given more consideration to elimination of waste, with the result that 1931 overhead should show a much better condition.

There are many other reasons why 1931 will be a good year but these are enough to prove our assertion. In fact, every year would be a banner year for the electrical construction industry if the contractors would only learn how to sell better.

The market is expanding so rapidly that new developments alone would provide a handsome increase each year. There should

never be any dearth of business. Even in 1930 there was plenty of wiring to be had—the only difference being, as one contractor put it, in 1930 you had to go after it.

In 1931 there will be more business available but most of it will have to be gone after.

Why Is It?

OUR investigators have been asking contractors if they were selling commercial glassware. It was interesting to hear the replies. For everyone who said no, it couldn't be done for this, that or the other reason, there was one or more who were selling this item.

Why—why is it that one man says it can't be done when the fellow across the street is doing it?

And the answer, of course, is not new—one man is a salesman and the other is not. Those who sell get the business and get ahead—the others do the complaining.

A New Year's Resolution

I RESOLVE that this year I will study some one specialty so that I shall be looked upon as an authority in my hometown and that I shall take for my motto:

CONTRACTORS WISE SPECIALIZE

Range Wiring Costs

FOR more than a year we have been studying the problem of electric range wiring costs in an attempt to reconcile the complaints from those interested in pushing electric cooking that the wiring costs too much, with the fact that contractors are not making any money as a rule from this class of work.

We are in no position to judge whether or not the cost of range wiring is hindering the sale of electric ranges to the extent claimed. Certainly a charge of \$75.00 for wiring is not going to make ranges any easier to sell.

The electrical contractor wants to see the market for electric ranges grow. It means more work for him. He cannot, however, be expected to help it forward by doing the wiring at a loss.

A way must be found, and we believe it can, to reduce range wiring costs and yet make the work profitable to the contractor.

Except in places where the utility service requirements are unusually severe, little reduction can be expected in material costs.

The greatest saving is going to come from labor, as it becomes more familiar with the work. When old house wiring was the rage, it will be remembered, there were certain contractors who could do the work at prices lower than anybody else and yet make a profit. In Chicago today five contractors are making money putting in additional outlets sold by the power company, at a price which would mean a loss to any other contractor.

These men are specialists. They study the work and know how to get it done quickly.

When electric range wiring is handled in the same wire, the price for good work will come down.

It is our opinion that a power company engaged in a range campaign should not try to give the wiring work to every contractor but should concentrate on not more than a few. When every contractor is given the work at a fixed price there is not enough to encourage any one contractor to "step on the gas." Where only a few get the work, the volume will be enough to cause them to train special men and to give the work the best of service. In doing this class of work, all the time, they will learn how to save time.

In the past when a utility has parceled out wiring jobs to all of the contractors complaints have been frequent. The utility has criticised the contractors for not properly looking after the jobs that "came to them on a silver platter." The contractors have criti-

cised the power company for wanting unreasonable service.

The fact is that the contractors have their own work to do and feel, with justification, that it should be given preference to work sold by the power company. Give the contractors enough of the power company work to find it very much worthwhile and the complaining on both sides will fade away.

Time also will be saved if each community were to have a standard hook-up, and we suggest that it be as simple as possible, yet safe.

The problem of range wiring costs, in our opinion, will not be so difficult once these methods are employed.

New Departments

WITH this issue two new features are added to the editorial service of ELECTRICAL CONTRACTING, a department for the industrial contractor and a department of practical ideas that have saved money for other contractors.

The problems of the man engaged in industrial wiring and motorization involves so many things not common to other contractors that it was decided to give special consideration to this field.

The "money saver" department has come as the result of a demand on the part of readers. In the past whenever we have presented short-cuts or time-savers we have almost immediately found scores of readers putting the ideas into practice. Our field editors are searching out these ideas everywhere. Readers are invited to send in any tested idea that will save time or money and not hurt the job.

What Are the Facts?

HOW many electrical contractors are there in the United States? Where are they located? What is their annual volume of business? How may they be classified according to volume? What, in other words, are the facts?

ELECTRICAL CONTRACTING has made an economic analysis of the electrical contracting business, the results of which will be given in the February issue.

This is the first time that a reasonably complete economic analysis of the field has been made. The results show an entirely different

picture from the general conception of the electrical contracting business.

The only reason why there has been so much mystery, and so many misstatements and half-truths regarding the electrical contracting market is that there have been no facts.

From the data released in the February issue of ELECTRICAL CONTRACTING there should come a clearer picture and a better understanding of the economics of the electrical contracting business.

A. E. I.

NEWS and SERVICE INFORMATION

Material for this department is supplied by the headquarters staff of the Association of Electragists, International, 420 Lexington Avenue, New York, N. Y.

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New Chapter Formed

Electragists of Wichita, Kansas, have been granted a charter as the Wichita Chapter and officers for the ensuing year have been named as follows: Roy G. Shelley, President; Charles Dalrymple, Sec'y-Treas.

Joint Motor Committee to Meet

Arrangements are being completed to hold a meeting of the Joint Committee on Motor Merchandising of A.E.I. and NEMA early in February. Since its meeting last August the committee has made substantial progress in its study of important matters relating to motor distribution problems and field practices of mutual interest to motor specialists and motor manufacturers. These will have further consideration at the coming meeting and it is expected that a number of recommended policies looking to improved operation of the motor business will receive endorsement of both groups represented. Naturally, any action resulting must be taken by individual concerns.

However, it is believed such endorsement can be valuable aid in bringing to local industry executives who are directly responsible for the sale and installation of motors and allied equipment a basis of guidance for the improvement of their service through adherence to constructive

policies and to sound trade relations.

According to Louis Kalischer, chairman of the A.E.I. committee, the meeting place has not yet been selected. A cordial invitation has been

extended by the motor specialists of San Francisco.

MacNutt Named for Industrial Committee

President Mayer has appointed Loren C. MacNutt, president of MacNutt, Watts & Tankard, New York City, to serve as contact member for the A.E.I. on the national commercial and industrial lighting committee, N.E.L.A.

An important undertaking of this committee during 1931 will be the preparation of a set of wiring specifications recommended for minimum adequacy in industrial establishments similar to those developed last year for adequate wiring in commercial and public structures, copies of which were distributed to A.E.I. members.

The approval with which these recommendations have been received by the electrical industry, and also by the architectural profession represented by the A.I.A., with whose co-operation higher standards of adequacy for commercial lighting are being applied is an assuring indica-

GREETINGS

To the Membership of the A.E.I.:

At this season of the year we are afforded the opportunity to express the wish that all of our contractors may enjoy a very happy and prosperous New Year.

Our business conditions for the past year have not been up to the so-called normal standard in volume which causes us to reflect how better conditions may be developed in our branch of the business.

Prices for work have been less than would bring a reasonable return on investments and should make us feel the necessity for correcting the situation, which, if no adjustment is made, will reflect unfavorably on the entire contracting industry.

As the opening of the new year is before us, let us attempt to put our houses in order so we may best sell our wares with reasonable returns above our costs, realizing that the most important factor in

developing a condition which is financially sound and fundamentally correct is to promote our principles in closing contracts through the art of salesmanship rather than through the influence of unreasonably low prices.

Let us make a New Year's Resolution that one of the most important undertakings for the benefit of the Association is to promote our name so that the public may be familiar with it and understand its objects.

"ELECTRAGISTS"—By this sign you will know them.

Send out the new circulars with all your mail.

Many important matters will be submitted to our membership by this Association from time to time and we respectfully ask that each of these matters be given due consideration and that prompt replies be made to all requests.

L. E. MAYER,
President.

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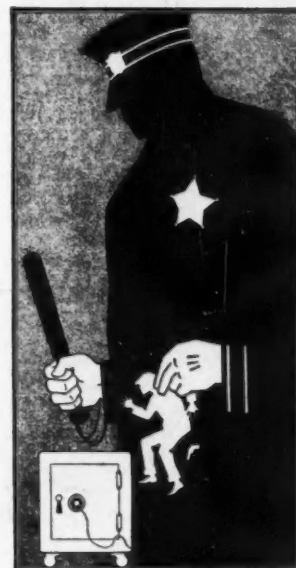
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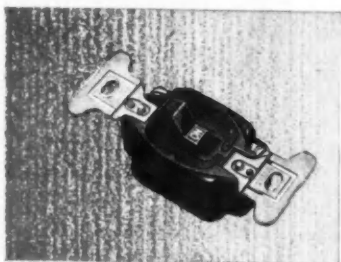
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RENEWABLE FUSES—PLUG FUSES—NON-RENEWABLE FUSES—FUSE PULLERS

The Way to Sell



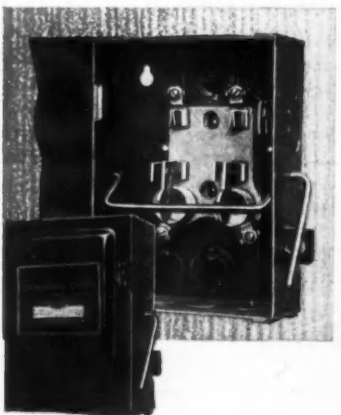
**C-H 7281
Toggle Switch**

"Rubber-mounted" Toggle Switch is enclosed in a dust-proof case of molded C-H Thermoplax. Entire mechanism mounted on two resilient rubber cushions for silent operation.



**C-H 9586 "AAA"
Twin Break Starter**

The structure of the new C-H Starter makes it almost imperishable electrically. Oxidation does not affect contactors; they neither bounce, weld nor burn; they are good for years more than the ordinary starter's life. Entire starter simplified, strengthened—superior!



**C-H 4141
General Duty Safety Switch**

Type "C" design and construction, smaller in size with ample wiring space. Switch bases are smaller. Plug or cartridge fuse type. Twenty-four sizes range from 30 to 100 amperes, 125 to 250 volts.

ALL leading contractors tell the same stories of business success . . . how they serve better to sell more . . . how they capitalize their experience by urging complete wiring, adequate for future needs . . . how they hold the goodwill thus gained by using materials of unquestioned quality.

The same truths fit safety switch and motor starter business. Too often an inadequate safety switch is specified . . . protection and permanence is left in doubt. Too often a safety switch is made to serve as motor control . . . a kind of protection, yes, but not the correct kind. Too often enthusiasm for giving momentary savings prevents an adequate, permanent job. The contractor's profits suffer first . . . and the buyer suffers eventually from a poor job.

As a guarantee of long-lived satisfaction standardize on C-H Motor Control, Safety Switches, Wiring Devices. Their construction and performance are the result of the 30-year-old C-H policy of not being satisfied with "just good enough". They are accepted as of superior quality everywhere . . . an acceptance built by consistent and far-reaching advertising and by quality that satisfies the most critical buyers. Use the C-H trademark as a selling point . . . and with it stamp the whole job as good.



is to Serve

Mr. Eugene Ashe
says . . .



*"If you want a Man's business, first prove
you're experienced enough to handle it"*

Mr. Eugene Ashe, as president of one of the oldest electrical contracting firms in the South, speaks on contractor-salesmanship with authority. His own organization, founded in 1906, remains unchanged in personnel with the exception of additional employees due to a splendid increase in business.

"The contracting business can no longer be conducted profitably on the old 'waiting-to-serve-you' basis. To get business now we have to go to the builder with new ideas—show him how to get a better wiring job", says Mr. Eugene Ashe. Mr. Ashe, president of the Eugene Ashe Electric Co., of Fort Worth, Texas, is known throughout the South as one of the most progressive contractors in the field.

"The best way for me to win confidence is to let the builder know I am as experienced in my field of electrical contracting as he is in his field of building. If I can give a little unasked-for help—check with his

architect on wiring plans before the installation—suggest various ways of improving the electrical system that will eventually be to his profit—then I am very likely to get the job and certainly will be remembered when the next job is up.

"Service to a client doesn't end here. It pays to use high quality materials to make sure that the job will be permanently right. We point this out to the builder . . . make a selling point of it. On many of our installations we use Cutler-Hammer exclusively. This equipment is exceptionally well built, durable and certainly adds to the customer's satisfaction both immediate and future".

CUTLER-HAMMER, Inc.
Pioneer Manufacturers of Electrical Apparatus
1258 St. Paul Avenue
MILWAUKEE • WISCONSIN

CUTLER HAMMER



WIRING DEVICES • MOTOR CONTROL • SAFETY SWITCHES

(A-3983)

tion that minimum adequacy specifications for industrial wiring will meet a very definite need in this important field. It is anticipated that their wide acceptance and application will result from contacts of the electrical industry with plant managers, superintendents and engineers.

The A.E.I. welcomes the present opportunity for further collaboration in this constructive work, and will have able representation in Mr. MacNutt, an electragerist of many years' standing, whose large experience in industrial wiring qualifies him exceptionally for the appointment.

New Electragerist Folders in Large Demand

Electragerists have been quick to appreciate the good-will value of the new folder "By this sign you know them," which the A.E.I. made available to members last month to assist them in educating the public to recognize in the name "Electragerist" a hall-mark of high standards of quality and service in electrical work. This is evidenced by the increasing orders being received at the headquarters office for quantities ranging from 1,000 to 5,000 each. In the first three weeks following announcement of this new member service the initial printing of a quarter of a million were distributed and a second printing has been run. New orders are being received at a rate requiring shipment of more than 10,000 daily.

The 4-page folder, shown in last month's issue, is attractively printed in color and is envelope stuffer size for convenient insertion to accompany members' outgoing correspondence, bills, monthly statements and business promotion material. Space is provided for imprinting by individual members. Calling attention to the dependability and efficient service of firms displaying the member seal—"the Emblem of Responsibility," it carries to their customers and prospects in concise, easy-to-read form a message designed to build confidence and resulting patronage.

To Study Voltage Loss

Collaborating with interested industry groups in a movement to decrease losses resulting from operation of Mazda lamps at lower than their rated voltages, the A.E.I. is recom-

correct the causes of undervoltage loss in their communities.

This important subject was strikingly presented at the Milwaukee convention last August, with the aid of an animated chart showing the comparative lighting values received by the consumer from operation of his lamps at various voltages. Recently there has been distributed to A.E.I. members a special bulletin summarizing this data prepared by G. S. Merrill, who has made an extensive and careful study of the effects on illumination intensities and lighting efficiency of lamps operated at voltages other than for which they were manufactured.

Frequently low voltage at lighting outlets is due to feeders and branch circuit conductors being of insufficient size for the load conditions and outlet distribution involved. It is this type of defect, which electragerists can remedy in existing installations and which are to be avoided in laying out new work. In this aspect the problem of undervoltage burning is closely related to adequacy of wiring installations. The A.E.I. invites co-operation of all electrical contractors in providing conductors of adequate size in all cases in order that this cause of losses from under-voltage burning may be minimized and the consumer receive greater light value for his lighting dollar.

Your Partners for Electric Service

THE ELECTRICAL CONTRACTOR

When you build or remodel, consult the first person you meet who can give you the most reliable and most complete information on the electrical work to be done. He is a member of the A.E.I. and will give you the best advice and the most reliable service. He is a member of the A.E.I. and will give you the best advice and the most reliable service.

THE INSPECTOR

When you build or remodel, consult the first person you meet who can give you the most reliable and most complete information on the electrical work to be done. He is a member of the A.E.I. and will give you the best advice and the most reliable service. He is a member of the A.E.I. and will give you the best advice and the most reliable service.

THE JOBBER

When you build or remodel, consult the first person you meet who can give you the most reliable and most complete information on the electrical work to be done. He is a member of the A.E.I. and will give you the best advice and the most reliable service. He is a member of the A.E.I. and will give you the best advice and the most reliable service.

THE MANUFACTURER

When you build or remodel, consult the first person you meet who can give you the most reliable and most complete information on the electrical work to be done. He is a member of the A.E.I. and will give you the best advice and the most reliable service. He is a member of the A.E.I. and will give you the best advice and the most reliable service.

THE POWER COMPANY

When you build or remodel, consult the first person you meet who can give you the most reliable and most complete information on the electrical work to be done. He is a member of the A.E.I. and will give you the best advice and the most reliable service. He is a member of the A.E.I. and will give you the best advice and the most reliable service.

THE NEW CO-OPERATION

When you build or remodel, consult the first person you meet who can give you the most reliable and most complete information on the electrical work to be done. He is a member of the A.E.I. and will give you the best advice and the most reliable service. He is a member of the A.E.I. and will give you the best advice and the most reliable service.

THE NEW CO-OPERATION:—As a part of its plan to build load with the help of the entire electrical industry, the Southern California Edison Company is now bringing the contractor, inspector, jobber and manufacturer to the attention of the public in newspaper advertising.

mending to its chapters that they study local conditions in this connection and take such steps as may be found practicable to discover and

NEW MEMBERS

The following applicants have been accepted into the A. E. I. since the publication of the list in the November issue:

ILLINOIS

Chicago:
Bamdula-Boch Electric Co.
Chatham Electric Fixture Co.
Chicago Electrical Equipment Co.
DeLuxe Light Co.
Farney Electric Co.
Fries-Walters Co.
Johnson Electric Co.
Medinah Electric Co.
Monroe Electric Co.
Thiel & Davies

MINNESOTA

Rochester:
Rochester Electric Co.
St. Paul:
Hoeft Electric Co., Inc.
Eastside Electric Co.

NEW YORK

Buffalo:
Mason Brown Electric Co.
New York City:
Thomas C. Miller, Inc.

PENNSYLVANIA

Philadelphia:
Electric Power Construction Co.
Independent Wiring Co., Inc.
Industrial Electrical Co.
Robinson Electrical Co., Inc.
Charles Kester

WISCONSIN

Racine:
Jensen & Hess
Superior:
Andrien Electric Co.

More Wiring Jobs for YOU!

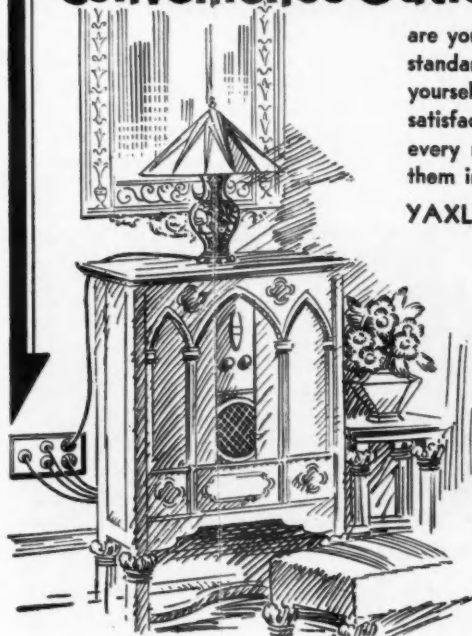
It is the fellows who have gone in for radio house wiring that have been keeping busy this fall and winter. You can sell a radio wiring job when there isn't a chance for the adding of standard convenience outlets.

In every home that owns a radio, there's a place for two or more radio convenience outlets. In small and large hotels they are becoming as necessary as running water. Apartment houses must have them to be rentable. Schools, hospitals and other public institutions are being wired for radio every day.

YAXLEY

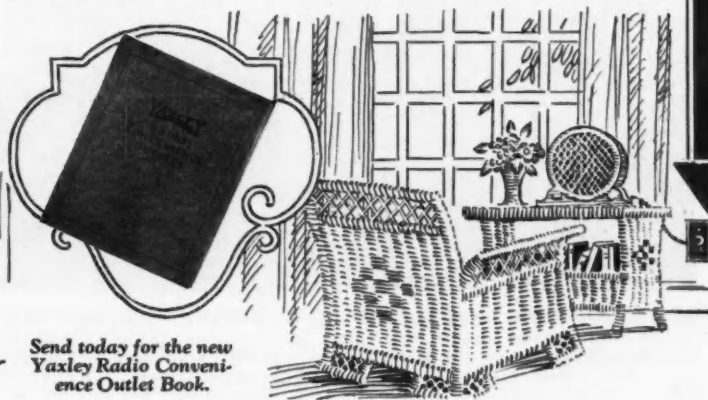
APPROVED RADIO PRODUCTS

Radio Convenience Outlets



are your best bid for wiring business, right now. Built in every way like a standard electrical convenience outlet; fit standard outlet box. Assure yourself a good merchandise and wiring profit, and complete customer satisfaction by installing Yaxley outlets—exclusively designed to meet every radio wiring need. Order a sample assortment—your jobber has them in stock.

YAXLEY MFG. CO., (Dept. E), 1528 W. Adams St., Chicago, Ill.



Send today for the new
Yaxley Radio Convenience
Outlet Book.



No. 135—For Loud Speaker
Connections: Brass...\$1.00
Bakelite 1.10

No. 136—Aerial and Ground:
Brass\$1.00
Bakelite 1.10

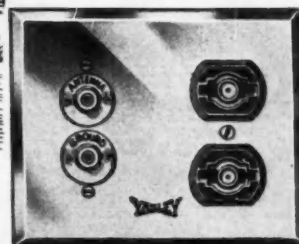
No. 131—Volume Control:
Brass\$2.75
Bakelite 2.85

*No. 241—Aerial and Ground
and A.C. Connections:
Brass\$2.00
Bakelite 2.20

*No. 242—Loud Speaker and
A.C. Connections:
Brass\$2.00
Bakelite 2.20

*No. 353—Loud Speaker
Aerial and Ground, A.C.
Connections: Brass...\$3.00

*Yaxley Radio Convenience Outlets with duplex electrical receptacles are listed as standard by Underwriters' Laboratories.



No. 241
For Aerial and Ground
and A.C. Connections



Special plates in any finish desired and with individual decorations and markings for exclusive installations.

Contracting News

Information of Interest to Electrical Contractors consisting of items of news, short articles, practical ideas, etc. Our readers are invited to contribute to this department

Rochester Association Has Active Year

The Rochester Electrical Contractors Association, Rochester, N. Y., has been very active during the past year. The association has had luncheon meetings every week with large attendance. At these meetings various subjects are taken up such as building activities, labor problems, window lighting, merchandising, etc.

A year ago 32 members went to New York City to see the Westinghouse Lighting Institute and recently 42 members went to Cleveland, visiting Nela Park, and the Cleveland League, as well as numerous factories, office buildings, golf courses, etc., where ideal lighting conditions were demonstrated.

The members have recently been

busy with a lighting campaign directed to stores, garages and gas stations. The association is also successfully operating an electrical survey bureau.

As part of the plans for 1931 they are now planning to send 30 estimators and salesmen to the lighting schools at Cleveland in February.

Anticipates Better Conditions

Clarence L. Collens, President of the National Electrical Manufacturers Association, in a recent interview stated that, although in 1930 electrical manufacturers, in common with many other lines of industry, have been disappointed in the course of business, the conditions carry some measure of encouragement.

He stated that in no previous de-

pression has there been so much evidence of sound thinking, and so marked an absence of departure from normal market levels in an effort to increase sales or to obtain a larger proportion of the business available. The resultant stability has been both exceptional and gratifying, and presages a similar conservative and understanding treatment of future conditions, which cannot but be of benefit to the industry.

In addition, the favorable factors of ample credit at low rates, depleted stocks, both of raw materials and finished products, and a very general liquidation in the prices of the industry's principal raw materials, cannot be without effect in bringing about recovery.

Although 1931 may give not too great encouragement for immediate prosperity in general industry, it is a year in which the foundation may be laid for future prosperity, and this opinion is based on the belief that modernization of every character—machines, methods, markets and men—will be under way, this statement applying not only to the producing branch of the business, but to engineering, research and selling, as well.

Ontario Contractors Elect Officers

At the recent meeting of the Ontario Electrical Contractors Association held in Brantford, the following officers were elected: Joseph Culley, Hamilton, president; S. Howard Kent, Kitchener, first vice-president, and J. R. Moore, Windsor, second vice-president. A. T. Land was re-elected secretary-treasurer.

Approximately 150 electrical con-
(Continued on page 85)



IOWA CONTRACTORS CHOSE BURLINGTON FOR SPRING MEETING:—At the fall meeting of the Iowa Association of Electrical Contractor-Dealers held recently at Des Moines, it was decided to hold the spring meeting at Burlington, Iowa. One of the features of this league is the Ladies' Chapter. At the Des Moines meeting the ladies appointed Mrs. E. N. Peak, president; Miss Dora Essinger, secretary, and Mrs. Ralph Heald, corresponding secretary. Above are a group of the contractors with some of the ladies.

LET THE "BIG RECEPTION"
FOR PROSPERITY START
WITH

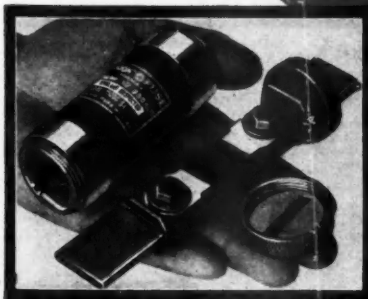
JEFFERSON UNION RENEWABLE FUSES



AND THE FUSE
IS RENEWED!

Why Jefferson-Union Ferrule Fuses Save Time and Money

The Jefferson-Union Ferrule Type Fuses have end-caps in one piece, without loose washers or end plugs, assuring positive contacts with fuse clips. Venting is through the caps, not the threads. Inspection and cleaning are easy, convenient. So is insertion of fusible link which adjusts itself automatically in length for a perfect fit. Held diagonally in the casing, it does not touch or char the casing. These features assure long life, low cost, quicker renewals.



Another time and cost saver—Jefferson-Union Knife-blade Renewable Fuse

The Jefferson-Union Knife-blade Fuse is uniquely simple. Insertion of a new link is a matter of seconds. Only one end-cap is removed. Loosening the studs a little permits speedy insertion of link. Rugged construction plus an exclusive method of venting through the fibre insures long-continued life.

YOU'LL get little advance notice when prosperity comes back. Use these days then to get equipment ready . . . don't be caught napping. Particularly prepare on such essential yet small-expense items as fuses. Check up every motor and electric circuit, see that fuses are replaced . . . and replaced with Jefferson-Union Renewable Fuses.

Jefferson-Union Fuses withstand blowout after blowout . . . and the fusible links are replaced in a few seconds. They cut yearly fuse costs and loss of productive time among men, motors and machines.

Getting these small items off the list simplifies your whole maintenance problem . . . and it is real economy to lay in a supply now.

JEFFERSON ELECTRIC COMPANY
1503 West 15th Street
Chicago, Illinois

A-4900

Suggested RESALE PRICES *for* Wiring Supplies

The prices listed on the following pages are merely suggested resale prices for the commonly used standard supplies and equipment employed in electrical construction work. They are based on average current trade costs throughout the country, very largely obtained from jobbers' price sheets, and are also based on average overhead charges.

• • •

Obviously, prices can be suggested only for the widely used products that are nationally distributed, and under no circumstances is this section intended to function as a directory of products or manufacturers.

• • •

The publishers wish to again emphasize that these are merely *suggested* resale prices and while every effort is made to make them universally applicable and accurate we cannot guarantee them or assume any responsibility for errors.

• • •

The prices appearing in this section will be completely revised each month as trade prices may change.

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Index

To Suggested Resale Prices

A

	Page
ACORNS—for Cords and Chains.....	PL-4 & 19
ADAPTORS and Reducers for Sockets.....	PL-4 & 19
ADAPTI Fittings and Boxes.....	PL-13 & 14
ADJUSTERS—for Cords.....	PL-4
ANCHORS or Expansion Shields.....	PL-10
ANNUNCIATORS—Bell.....	PL-4
ANNUNCIATOR Wire.....	PL-28
APPLETON Entrance Fittings.....	PL-13
ARMORED CABLE—BX and Similar.....	PL-9
" Fittings.....	PL-14
ASBESTOS Millboard.....	PL-4
" Cord for Appliances.....	PL-8
" Range Wire.....	PL-29
ATTACHMENT Plugs and Caps.....	PL-16
ATTACHMENTS—for Pull Sockets.....	PL-4

B

BABY KNIFE SWITCHES.....	PL-21
BAR Hangers for Boxes.....	PL-5
BASES—for Sockets.....	PL-19
BAYONET Sockets.....	PL-19
BELLS and BUZZERS.....	PL-6
BELL Annunciators.....	PL-4
" Cords.....	PL-8
" Transformers.....	PL-28
" Wire.....	PL-29
BENDS and Elbows for Rigid Conduit.....	PL-9 & 11
BEND HICKS and Elbow Fittings.....	PL-13
BLOCKS—Wood for Fixtures.....	PL-8
" Enclosed Fuse.....	PL-9
BOLTS—Carriage, Stove and Toggle.....	PL-8
" Expansion and Anchor.....	PL-10
BOX—Connectors or BX Fittings.....	PL-14
BOXES—Adapti Boxes.....	PL-13
" Cable and Loom.....	PL-4-5 & 6
" Concrete.....	PL-5
" Conduit.....	PL-4-5 & 6
" Cutout or Service.....	PL-6
" Floor.....	PL-6
" Handy or Utility.....	PL-5 & 8
" Laundry.....	PL-4
" Mail.....	PL-15
" Outdoor Meter.....	PL-22
" Outlet.....	PL-5
" Switch.....	PL-4
" Entrance Switches—See Switches	
BRACKETS—for Insulators.....	PL-7 & 8
BREWERY CORD.....	PL-8
BUSHINGS for Rigid Conduit.....	PL-5 & 9
" Porcelain.....	PL-5
" for Sockets.....	PL-6 & 19
BUTTONS—Push for Bell Work.....	PL-4 & 7
" Ceiling P. & S. Porcelain.....	PL-8
BUZZERS and BELLS.....	PL-6
BX-BXL Armored Cables.....	PL-9

C

GABINETS—Meter and switch.....	PL-16
CABLES—Armored and Lead Covered.....	PL-9
" Deck.....	PL-8
" Non-Metallic Romex, Etc.....	PL-9
" Packing House.....	PL-8
" Park—Non-Metallic.....	PL-29
" Park—Steel Taped.....	PL-29
" Rubber and Lead Covered.....	PL-28 & 29
" Stage.....	PL-8
CANDLE Sockets.....	PL-19
CANDELABRA Sockets.....	PL-19
CANOPY Switches.....	PL-20 & 21
CANVASITE Cord.....	PL-8

C—Continued

	Page
CAPS—for Attachment Plugs.....	PL-16
" Entrance Fittings.....	PL-13
CARRIAGE Bolts.....	PL-8
CEILING Switches.....	PL-21
" Buttons.....	PL-8
CHASE NIPPLES and Couplings.....	PL-16
CHAIN for Pull Sockets.....	PL-19
CIRCUIT Boxes and Residence Panels.....	PL-17
CLAMPS—Grounding.....	PL-9
" Hangers.....	PL-15
" Table for Bell Work.....	PL-7
" or Straps for Pipe.....	PL-9 & 27
CLEAT Rosettes.....	PL-19
CLEATS—Porcelain Insulator.....	PL-15
CLIPS or Straps for Pipe.....	PL-9 & 27
" for Loom.....	PL-9 & 15
COLORING Fluid or Liquid.....	PL-9
COMMERCIAL Glassware.....	PL-14
CONCRETE Boxes.....	PL-5
CONDUIT—Rigid or Flexible Metal.....	PL-9
" Bushings and Locknuts.....	PL-5 & 9
" Couplings.....	PL-9
" Elbows and Bends.....	PL-9 & 11
" Fittings All Types.....	PL-11 to 14
" Flexible Armored.....	PL-9
" Hangers.....	PL-15
" Locknuts and Bushings.....	PL-5 & 9
" Nipples.....	PL-16
" Reducers.....	PL-9 & 16
" Thin Wall.....	PL-9
CONDULETS—Fittings.....	PL-11 & 12
CONNECTORS—Armored for BX, Etc.....	PL-14
" Solderless.....	PL-10
" Fixture, Wire & Cord.....	PL-10
" Greenfield and BX.....	PL-14
" Cord and Motor.....	PL-10
COMPOUND—Pothead.....	PL-17
CORDS—All Types.....	PL-8
" For Pull Sockets.....	PL-19
" Extension—Made-Up.....	PL-10
CORD Adjusters.....	PL-4
" Armored Lamp.....	PL-9
" Connectors.....	PL-9 & 10
COUPLINGS—for Conduit.....	PL-9
COVERS for Outlet Boxes.....	PL-4 & 5
CROWFEET for Fixtures.....	PL-9
CURRENT TAPS.....	PL-19
CUTOUT Boxes—Steel.....	PL-6
CUTOUTS—Plug & Cartridge Enclosed.....	PL-9

D

DAMP PROOF Office Wire.....	PL-29
DECK Cable.....	PL-8
DELTABESTON Cord.....	PL-8
" Wire.....	PL-28
DIM-A-LITE Sockets.....	PL-19
DOOR Switches and Openers.....	PL-21
" Trips and Springs.....	PL-7

E

ELBOWS or Bends or Conduit.....	PL-9 & 10
ELECTROLET Entrance Fittings.....	PL-13
ENCLOSED Fuses.....	PL-10
" Cutouts.....	PL-9
ENTRANCE Fittings.....	PL-13
" Panel Switches Plug Type.....	PL-21
" Safety Switches.....	PL-21 to 27
ERICKSON Couplings for Conduit.....	PL-9
EXPANSION Shields and Bolts.....	PL-10
EXTENSION Cords made up.....	PL-10
" for Sockets.....	PL-4

F

	Page
FEDERAL Bushings and Similar.....	PL-5
FEED THRU and Pendant Switches.....	PL-21
FITTINGS—Armored Cable.....	PL-14
" Adapti.....	PL-13 & 14
" Condulets and Similar.....	PL-11 & 12
" Electrolets and Similar.....	PL-13
" Entrance All Types.....	PL-13
" Groundulets.....	PL-14
" Kondu Threadless.....	PL-12
" Spragulets and Wireless.....	PL-13
FIXTURE Blocks—Wood.....	PL-8
" Cords.....	PL-8
" Studs.....	PL-27
" Wire.....	PL-29
FLASHERS Speedoodle Plugs.....	PL-16
FLEXIBLE Metal Conduit.....	PL-9
" Loom-Non-Metallic.....	PL-15
FLOOR Pushes and Treads.....	PL-6
" Boxes.....	PL-6
FLUSH Receptacles.....	PL-10
" Switches and Plates.....	PL-20
FRICITION Tape.....	PL-27
FUSES—All Types.....	PL-10
" Blocks—Enclosed.....	PL-9
FUSE Wire.....	PL-10
FUSENTERS and House Panelboards.....	PL-17

G

GASKETS—for Condulets.....	PL-11
G. E. Fittings—Entrance.....	PL-13
GEE VEE Fittings—Entrance.....	PL-13
GLASSWARE—Commercial.....	PL-14
" Modernistic.....	PL-14
GREENFIELD Flexible Conduit.....	PL-9
" Connectors for Flexible.....	PL-14
GROUNDING Clamps.....	PL-9
GROUND Rods.....	PL-19
GROUNDULETS Fittings.....	PL-14
GUARDS—Lamp.....	PL-14

H

HANDY BOXES.....	PL-5
HANGERS—Conduit and Cable.....	PL-15
" for Outlet Boxes.....	PL-5
HANDLES—for Sockets.....	PL-19
" For Snap Switches.....	PL-20
HOLDERS—Shade.....	PL-15
HOUSE RACKS and Wireholders.....	PL-8

I

INCREASERS for Conduit.....	PL-16
INSULATED Nails.....	PL-16
INSULATING Links for Chain.....	PL-15 & 19
" Paint or Varnish.....	PL-17
" Staples.....	PL-16 & 27
IRON Plugs.....	PL-17

K

KNIFE Switches—Baby.....	PL-21
KNOBBS—Tubes and Cleats.....	PL-14 & 15
KONDU Threadless Fittings.....	PL-12 & 15

Electrical Contracting, January, 1931

L

	Page
LAG Screws.....	FL-27
LAMP GUARDS.....	FL-14
LAUNDRY Boxes.....	FL-4
LEAD Covered Armored Cables.....	FL-9
" Covered & Rubber Cov. Cables.....	FL-29
LEVOLIER Switches.....	FL-21
LINKS—Insulating.....	FL-15 & 19
Renewable Fuse.....	FL-18
LIQUID for Coloring.....	FL-9
LOCKNUTS—Conduit.....	FL-8 & 15
LOOM—Non-Metallic Flexible.....	FL-15
Clips.....	FL-9
LOCUST Pins.....	FL-7
LUGS—Soldering for Wire.....	FL-15
LUMINOUS Acorns for Cords.....	FL-4 & 19
Buttons for Switches.....	FL-20

M

MAGNET Wire.....	FL-29
MAIL Boxes.....	FL-15
METAL Molding.....	FL-15
Wiremold.....	FL-16
METER Boxes Outdoor.....	FL-22
METER and Switch Cabinets.....	FL-16
METER Service Switches.....	FL-21 to 27
MINIATURE and Candelabra Sockets.....	FL-18
MOGUL Sockets.....	FL-19
MOTOR Cord Connectors.....	FL-10
MOLDING Metal.....	FL-15 & 16
Wiremold.....	FL-16
MULTI Bushings.....	FL-5

N

NAILS—Insulated.....	FL-16
NIPPLES for Conduit.....	FL-16
NON-METALLIC—Park Cables.....	FL-29

O

OFFICE Wire.....	FL-29
OPENERS—Door.....	FL-21
OUTDOOR Meter, Boxes.....	FL-22
OUTLET Boxes and Covers.....	FL-4 & 5
OVALDUCT Metal Moulding.....	FL-16

P

PAINT—Insulating.....	FL-17
PANELBOARDS Small House Type.....	FL-17
PANEL Switches.....	FL-21
PARK Cable.....	FL-29
PASTE Soldering.....	FL-17 & 27
PENDANT Switches.....	FL-21
PINS—Locust.....	FL-7
PIPE—Rigid Conduit.....	FL-9
Clamps and Straps.....	FL-9 & 27
Nipples.....	FL-16
Threaded.....	FL-17
PLATES for Receptacles.....	FL-18
for Switches.....	FL-20
PLUG Cutouts.....	FL-9
PLUGS—Attachment and Appliance.....	FL-16
Conduit.....	FL-17

P—Continued

	Page
POTHEAD Compound.....	FL-17
PORCELAIN Bushings.....	FL-5
Cutouts.....	FL-9
Knobs and Tubes.....	FL-15
PUSH Buttons, Treads, Springs.....	FL-7

R

RACKS and Wireholders.....	FL-7 & 8
RADIO RECEPTACLES.....	FL-18
RAWLPLUGS.....	FL-19
RECEPTACLES—Flush.....	FL-18
Radio.....	FL-18
Sign.....	FL-19
Surface.....	FL-18 & 19
for Conduit.....	FL-18 to 14
REDUCERS—Conduit.....	FL-9 & 16
Chase.....	FL-16
Socket.....	FL-4
REMOTE CONTROL Switches.....	FL-21
RODS for Grounding.....	FL-19
ROMEX and Similar.....	FL-9
ROSETTES—Porcelain.....	FL-19
for Conduit Fittings.....	FL-11 to 14
RUBBER TAPE.....	FL-27

S

SAFETY Switches—All Makes.....	FL-21 to 26
SALTS—Soldering.....	FL-26
SCREWS—Lag.....	FL-27
Machine and Wood.....	FL-27
SERVICE Boxes or Cutout Boxes.....	FL-6
SHADE HOLDERS—Standard.....	FL-15
SHIELDS—Expansion.....	FL-10
SKEEDOODLE Flasher Plugs.....	FL-17
SLATE Base Cutouts.....	FL-9
SNAP Switches—Wall.....	FL-20
Switches—Pull Cord Type.....	FL-20 & 21
SOCKETS—All Types.....	FL-19 & 20
SOCKET Adapters.....	FL-4
Attachments.....	FL-4
Bushings.....	FL-5 & 19
Extensions.....	FL-4
Handles.....	FL-19
Twin.....	FL-19
SOLDER—All Types.....	FL-27
Paste.....	FL-17 & 27
SOLDERING Lugs.....	FL-15
SOLDERLESS Connectors.....	FL-10
SPACERS—For Boxes.....	FL-4
SPEAKING Tubes.....	FL-15
SPRAGULETS Fittings.....	FL-13
SPRINGS—Window and Door.....	FL-6 & 7
SQUEEZE Connectors.....	FL-14
STAPLES for Bell Work.....	FL-16 & 27
STEEL Taped Park Cable.....	FL-29
STOVE Bolts.....	FL-8
STRAPS and Pipe Clamps.....	FL-9 & 27
STUDS for Fixtures.....	FL-27
SWITCH Boxes.....	FL-4
Plates.....	FL-20
SWITCHES—Canopy.....	FL-21
Door.....	FL-21
Entrance and Panel.....	FL-21 to 27
Flush-Push-Tumbler.....	
Snap.....	FL-20
Knife.....	FL-21
Meter and Cabinet.....	FL-16
Panel.....	FL-21

S—Continued

	Page
SWITCHES—Pendant and Feed Thru.....	FL-21
Pull Cord.....	FL-20 & 21
Remote Control.....	FL-21
Time.....	FL-28
SWITCHES SAFETY ENTRANCE TYPE	
Bulldog.....	FL-24 & 25
Columbia.....	FL-25
Murray.....	FL-26
Noark.....	FL-24
Safety Entrance Type	
Square D.....	FL-21 & 23
Trumbull.....	FL-22
Trumbull-Vanderpool.....	FL-22 & 23
Wadsworth.....	FL-26
Westinghouse.....	FL-23 & 24

T

TABLE Clamps.....	FL-7
TAPE—Friction and Rubber.....	FL-27
TAPLETS—Conduit Fittings.....	FL-11
TAP—Current.....	FL-19
TELEPHONES.....	FL-28
Wire.....	FL-29
TERMINALS and Soldering Lugs.....	FL-15
THIN Wall Conduit.....	FL-9
THREADED Pipe.....	FL-17
THREADLESS Conduit, Fittings.....	FL-13
TIME Switches.....	FL-28
TOGGLE Bolts.....	FL-9
Switches.....	FL-20
TRANSFORMERS—Bell and Toy.....	FL-28
TREADS—Floor.....	FL-6 & 7
TUBES—Porcelain.....	FL-15
Speaking.....	FL-15
TUMBLER Switches and Plates.....	FL-19
TWIN Sockets.....	FL-19

U

UTILITY Boxes.....	FL-5
UNILETS Conduit Fittings.....	FL-11

V

V. V. FITTINGS for Conduit.....	FL-11
VAPORPROOF Fittings.....	FL-12
VARNISH and Paint.....	FL-17

W

WEATHERCAPS Entrance Fittings.....	FL-13
WEATHERPROOF Wire.....	FL-29
Conduit Fittings.....	FL-12
WIRE—Rubber Covered.....	FL-29
Weatherproof.....	FL-29
Annunciator.....	FL-29
Asbestos Range.....	FL-29
Connectors.....	FL-18
Damp Proof.....	FL-29
Deltabeston.....	FL-29
Lead and Rubber Covered.....	FL-29
Magnet.....	FL-29
Telephone and Telegraph.....	FL-29
WIREHOLDERS and Brackets.....	FL-7 & 8
WIRELETS and Spragulets.....	FL-13
WIREMOLD.....	FL-16
WOOD Fixture Blocks.....	FL-8

Suggested Resale Prices for Wiring Supplies

These are merely suggested resale prices for the commonly used products that appear regularly on jobber price lists. They are figured on generally accepted principles for computing resale prices and should cover average conditions but are not guaranteed. (See note on title page.)

A-SUNDRIES

ASBESTOS						
Asbestos Millboard—Per Pound—30c.						
ANNUNCIATORS						
House-Surface Type						
No. Drops	Ansonia Wood	Metal	Edwards No. 81 or Faraday No. 373	Edw. & White Enamel	P. & W. Competition	Automation
2	\$ 8.25	\$11.00	\$ 9.85	\$13.00	.....	.....
3	9.35	12.45	11.60	14.80	.....	.....
4	10.90	13.60	13.05	16.40	\$13.20	\$16.50
5	12.65	14.85	.....	.....	.....	.....
6	13.60	16.10	16.40	19.40	16.50	19.80
8	16.10	18.90	19.40	22.75	19.80	24.75
10	19.00	21.60	22.75	26.00	23.10	29.70
12	21.50	24.25	25.90	29.15	26.40	.....
15	27.00	30.25	.....	.....	.....	.....
16	.....	.....	34.60	40.00	34.65	.....
20	35.90	40.85	.....	42.90	.....	.....
Extra Drops	.....	.....	2.25	3.00	.....	.....

(All other Announciators—Sell at List less 10%)

COUCH

Electrical Reset						
Style D Face Type Wood Face		Style F Flush Wood Face		Style F Flush Metal Face		
Number of Drops	Number	Price	Number	Price	Number	Price
4	DA 4	\$21.50	FA 4	\$44.80	FA 4	\$49.80
6	DA 6	26.50	FA 6	49.30	FA 6	55.00
8	DA 8	31.50	FA 8	53.80	FA 8	59.70
10	DA 10	36.50	FA 10	58.25	FA 10	64.70
12	DA 12	43.10	FA 12	64.25	FA 12	71.30
15	DA 15	.....	FA 15	73.10	FA 15	81.50
16	DA 16	56.50	.....	.....	.....	.....
20	DA 20	69.75	FA 20	88.15	FA 20	98.00

Add for each drop on any of above—\$4.15 per drop

ADAPTORS & REDUCERS

For Sockets and Vases						
	Arrow	Benj. Bryant	G. E.	Hubbl.	Price	
Mogul to Medium	292	98	421	070	.....	\$0.50
Medium to Candelabra	392	.....	392	35699	.....	.25
Candelabra to Miniature	391	.....	391	2644	492	.25
Medium to Intermediate	492	.....	9691	.....	.....	.30
Parallel Blades to Medium	.....	1006	KF	682	5424	.....
Plug in Pull Socket	35024	.....	35024	.....	35024	1.90
Vase Adapters, Benjamin No. S. 831, 832, 833—Each	2.00

SOCKET EXTENSIONS

Benjamin No. 91 Socket Extension—Each	\$.45
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EXTENSION ARMS FOR PULL SOCKETS

For Brass or Porcelain Sockets with 8"—10"—12" or 14" Reflec.	\$0.55
16"—18" or 20"	.65

ATTACHMENTS FOR PULL SOCKETS

For 8" to 14" Reflectors No. 5828—5829—5957—5958	.....
For 16" to 20" Reflectors No. 5953—5954—5959—5960	.....

ADJUSTERS

For Cords

	Price
Universal Cord Adjuster Standard Size No. 1417 3/4" Long	\$.10
" " Factory No. 1418 5 1/4" Long	.15
" " Reinforced No. 1419 5 1/4" Long	.20
Ball Type No. 1403 & 5 for Type C Cord. 1/4 hole	.10
No. 4634 & 5 for Reinforced Cord 1/4 hole	.12

ACORNS & TASSELS

Luminous Acorns and Pendants for Pull Chain	\$0.30
Brass Acorns and Tassels for Pull Chain	.10
Brass Acorns Adjustable for Linen Cord	.10
Insulating Link for Pull Chain	.15

BOXES, SWITCH

STANDARD SWITCH BOXES

	Depth	Without clamps	Black	Price
For Loom	2 3/4 or 2 1/2	.....	.....	Galvd. \$.21
" " " "	2 3/4 " 2 1/2	With " "	.....	.18 .22
For Metallic Cable	2 3/4 " 2 1/2	With " "	.....	.16 .21
" " " "	3 " 2 1/2	With " "	.....	.32 .36
For Rigid Conduit	1 1/2 to 2 3/4	Without " "	.....	.16 .21
" " " "	3 & 3 1/2	Without " "	.....	.32 .36
Spacers—For Spacer on 1/2 deduct from any of above prices	.....	.....	.....	.04 .05

With BRACKETS or EXTENDED EARS or LATH SUPPORTS

	Depth	Without clamps	Black	Price
For Loom	2 3/4 or 2 1/2	.....	.....	Galvd. \$.24
" " " "	2 3/4 " 2 1/2	With " "	.....	.22 .26
For Metallic Cable or Loom	2 3/4 " 2 1/2	With " "	.....	.28 .33
" Rigid Conduit	2 to 2 3/4	Without " "	.....	.25 .30

SECTIONAL BOXES

	Boxes	Spacers
	Black Galvd.	Black Galvd.
For Loom or Romex	2-2 3/4 Deep	\$0.20 \$0.22 \$0.04 \$0.05
" Rigid or Flex Conduit	2 & 2 1/2	.22 .24 .05 .06
" Flex. Met. Conduit Only	2	.25 .27 .05 .06

SOLID GANG BOXES—GALVANIZED

Covers Extra

	2 Gang	3 Gang	4 Gang	5 Gang	6 Gang	7 Gang	8 Gang
Price of Box	\$.75	\$1.15	\$1.50	\$2.00	\$3.75	\$5.65	\$6.10
Price of Cover	.38	.55	.75	.95	1.80	3.20	3.55

TANDEM SWITCH BOXES

		Black			Galvanized		
Loom, BX or Conduit	2 Gang	3 Gang	4 Gang	2 Gang	3 Gang	4 Gang	
Tandem Boxes 1 1/2 & 2" Deep	\$.68	\$1.10	\$1.63	\$.81	\$1.23	\$1.90	
" 2 1/2 & 2 3/4 " "	.81	1.23	1.90	.95	1.37	2.18	

DOOR SWITCH BOXES

	Black	Galvd.
For Rigid or Flexible Conduit without Clamps	.....	.....
" " " " with Clamps	\$.50	\$.55

LAUNDRY BOXES

	Black	Galvd.
Gem-Appleton or Raco, etc., with Single Receptacle	\$1.10	\$1.25
" " " " Duplex	1.25	1.35

For Concrete Boxes See Page PL-5.
For Solid Gang Boxes See Page PL-5.

BOXES & COVERS, OUTLET

CEILING BOXES, ROUND

Universal Nos.	Size and Description	Depth	Knockouts Bottom Side	Price
				Black Galvd.
36115	3 1/2" With Lugs	1 1/2	3-1 1/2" & 4" Loom	\$0.12 \$0.13
36116	3 1/2" No	1 1/2	3-1 1/2" & 4" "	.10 .12
36125	3 1/2" With " "	1 1/2	3-1 1/2" & 4" "	.14 .16
36126	3 1/2" No	1 1/2	3-1 1/2" & 4" "	.12 .14
36716	3 1/2" Flat Plate with Clamps	1 1/2	3-1 1/2" & 4" "	.09 .11
56111	4" With Ears	1 1/2	5-1 1/2" or 3 1/2" K.O.	.10 .12
56112	4" No	1 1/2	5-1 1/2" or 3 1/2" K.O.	.09 .11
56115	4" With Ears-Loom & Cond.	1 1/2	3-1 1/2" & 6" Loom	.11 .14
56116	4" No	1 1/2	3-1 1/2" & 6" "	.09 .11
56121	4" With Ears	1 1/2	5-1 1/2" or 3 1/2" K.O.	.14 .16
56122	4" No Ears	1 1/2	5-1 1/2" or 3 1/2" K.O.	.10 .12
56125	4" Ears-Loom & Conduit	1 1/2	3-1 1/2" & 6" Loom	.16 .19
56126	4" No Ears	1 1/2	3-1 1/2" & 6" "	.14 .16
56712	4" Flat Plate	1 1/2	5-1 1/2" or 3 1/2" K.O.	.09 .11

OUTLET BOXES, OCTAGON

Universal Nos.	Size and Description	Depth	Knockouts Bottom Side	Price
				Black Galvd.
24151	3 1/2" Oct.-Conduit Box	1 1/2	1-1 1/2" 4-1 1/2"	\$0.11 \$0.13
24151	3 1/2" " " " "	1 1/2	1-1 1/2" 4-1 1/2"	.12 .15
24151FS	3 1/2" " " " " With Stud	1 1/2	1-1 1/2" 4-1 1/2"	.21 .23
54151	4" Oct.-Conduit Box	1 1/2	5-1 1/2" 4-1 1/2"	.14 .17
54151	4" " " " " " "	1 1/2	5-1 1/2" 4-1 1/2"	.16 .19
54151FS	4" " " " " " " With Stud	1 1/2	5-1 1/2" 4-1 1/2"	.21 .23
54155	4" " " " " " " " "	1 1/2	5-1 1/2" 12-1 1/2"	.20 .23
54171	4" " " " " " " " " " "	2 1/2	1 1/2-1 1/2-1 1/2-1 1/2"	.25 .28

COVERS

For 3/4"-3 1/2"-4" Octagon or Round Boxes

				Black	Galvd.
24C-1	3 1/4"	Blank Cover Flat		\$0.05	\$0.07
24C-2	3 1/4"	" Raised		.05	.07
24C-6	3 1/4"	Flat	with 1/4" K. O. in Center	.06	.08
24C-7	3 1/4"	Raised	" " " " "	.06	.08
24C-12	3 1/4"	"	" Metal Bushing	.06	.08
24C-28	3 1/4"	Spider	for Switch or Receptacle	.07	.08
24C-31	3 1/4"	Raised	" Federal Sign	.06	.08
24C-33	3 1/4"	Flat	1 1/2" hole for other	.20	.22
24C-35&36	3 1/4"	Raised	1 1/2" hole for other	.06	.08
24C-39	3 1/4"	Flat	for fluted devices	.18	.20
54C-1	4"	Blank Cover Flat		.05	.08
54C-2	4"	" Raised		.06	.09
54C-3	4"	Raised	Open 1/2" Deep	.08	.09
54C-6	4"	Flat	with 1/2" K. O. in Center	.06	.09
54C-7	4"	Raised	" " " " "	.07	.10
54C-12	4"	"	" Metal Bushing	.06	.09
54C-28	4"	Spider	for Switch or Receptacle	.07	.09
54C-31	4"	Raised	" Federal Sign	.07	.09
54C-33	4"	Flat	1 1/2" Hole for Std.	.20	.22
54C-35-6	4"	Raised	for Fluted Devices	.06	.08
54C-39	4"	Flat	for Fluted Devices	.20	.22
54C-48	4"	Raised	1/2" High Open	.07	.10

OUTLET BOXES—Square 4" & 4 1/8"

Uni- versal No.	Size and Description	Depth	Bottom	Side	Black	Galvd.
51151	4" Sq. Comb. Gas & Elect.	1 1/4"	5-1/4"	8-1/4"	\$0.16	\$0.20
51151	4" " "	1 1/4"	5-1/4"	8-1/4"	.18	.22
52151	4" Conduit Box	1 1/4"	5-1/4"	10-1/4"	.16	.20
52151	4" " "	1 1/4"	5-1/4"	10-1/4"	.18	.22
52171	4" " "	2 1/4"	5-1/4"	10-1/4"	.18	.22
72151	4 1/8" " "	1 1/4"	5-1/4"	10-1/4"	.16	.20
72171	4 1/8" " "	2 1/4"	5-1/4"	10-1/4"	.18	.22

COVERS For 4" & 4 1/8" Square Boxes

52C-1	4" Sq. Blank Flat				\$0.08	\$0.10
52C-2	" Raised				.11	.13
52C-3	" Flat with 1/2" High Open				.12	.15
52C-6	" Flat with 1/2" K. O. in Center				.10	.12
52C-7	" Raised				.13	.16
52C-12	" " Metal Bushing				.11	.13
52C-13	" " for Rect. Switch or Recept.				.10	.12
52C-14	" " " " "				.10	.13
52C-15	" " " " "				.15	.17
52C-16	" " " " "				.18	.21
52C-17	" " " " "				.15	.17
52C-18	" " " " "				.21	.23
52C-19	" " " " "				.23	.26
52C-21	" " " " "				.15	.17
52C-28	" Flat Spider for Snap Switches				.09	.10
52C-31	" Raised for Sign Rec.				.14	.16
52C-35-36	" Fluted Devices				.27	.30
52C-39	" with 2 1/2" Opening				.10	.13
52C-48	" For French Fixture				.34	.37
52C-62	" Single Sw. 1/4" High				.10	.12
72C-1	4 1/8" Sq. Blank Flat				.27	.32
72C-2	" Raised				.32	.34
72C-3	" Raised				.34	.34
72C-7	" With 1/2" K. O. in Center				.34	.34
72C-12	" " Bushing				.34	.34
72C-14-15	" 1/2" & 1" for Switch or Rec.				.36	.36
72C-18	" " 2 Devices				.50	.50
72C-48	" Open 1/2" High				.34	.34
Special	1" Cover for One Push or Toggle Switch or Single				.18	.23
Covers	or Duplex Receptacle					
For Red	4" Cover Two Push or Toggle Switches or Two				.32	.36
Seal	Receptacles or Any Combination of Two Devices					

EXTENSION RINGS For Octagon & Square Boxes

25151	3 1/4" Octagon Ring—1 1/4" Deep	\$0.23	\$0.25
43151	" " or Square Ring 1 1/4" Deep	.25	.27
73151	4 1/8" Square Ring 1 1/4" Deep	.60	.60
55171	4" Octagon Ring 2 1/4" Deep	.44	.48
53171	4" Square " 2 1/4" "	.70	.70
73171	4 1/8" " " 2 1/4" "	.65	.65

HANDY OR UTILITY BOXES & COVERS
For Use With Rigid Conduit

Description	Universal Numbers	Price
Box 3 1/4"x1 1/4"x1 1/4" For Rigid Cond.	58151	\$0.22
Box 4x2 1/4"x1 1/4" For Rigid Cond.	58361	.22
Box 4x2 1/4"x1 1/4" For Rigid Cond.		.22
Box 4x2 1/4"x2 1/4" For Rigid Cond.	58371	.22
Box 4x2 1/4"x2 1/4" For Rigid Cond.		.60
Cover Flat Steel Closed	58C1	.10
Cover Porcelain with Holes		.13
Cover for Sgle. Receptacle	58C5	.18
Cover for Duplex Receptacle	58C7	.18
Cover for Toggle Flush Switch	58C30	.18
Cover for Sgle. Push Switch	58C3	.18
Cover for Sign Receptacle	58C33	.18
Cover for Snap Switches	58C28	.18
Cover with 1/2" K. O.	58C6	.16
Cover with 1/2" or 3/4" Nipple		.27
Cover with Bushing for Cord	58C11	.16

CONCRETE BOXES WITH COVERS

Depth	1 1/4"	2"	2 1/4"	3"	3 1/4"	4"	5"	6"
Box & Back Plate with 1/2" Stud.	\$0.27	\$0.32	\$0.39	\$0.46	\$0.50	\$0.56	\$0.60	\$0.60
Box & Back Plate less 1/2" Stud.	.23	.27	.30	.34	.36	.40	.45	.55
Plate only 4 1/2" Round without Fixture Stud 3 1/4" and 2 1/4" K. O.								\$0.15
Plate only 4 1/2" Round with 1/2" Fixture Stud 3 1/4" and 2 1/4" K. O.								.20

SOLID GANG BOXES

Covers Extra

Galvd. Only	2	3	4	5	6	7	8
Box Price	\$.75	\$1.15	\$1.50	\$2.00	\$3.75	\$5.65	\$6.10
Cover	.38	.58	.75	.95	1.80	3.20	3.55

BOXES, OUTLET

NEW CODE OUTLET BOXES

Box Only

Size	Stud	Clamps	Bush Plates	Price	
3 1/4"x1 1/4" Round	Yes	Two	No	\$0.23	
3 1/4"x1 1/4" Round	Yes	Two	No	.27	
3 1/4"x1 1/4" Octagon	No	Two	Two	.23	
3 1/4"x1 1/4" Octagon	Yes	Two	Two	.27	
3 1/4"x1 1/4" Round	No	Two	No	.18	
3 1/4"x1 1/4" Round	Yes	Two	Two	.23	
3 1/4"x1 1/4" Octagon	No	Two	Two	.23	
3 1/4"x1 1/4" Octagon	Yes	Two	Two	.27	
4x1 1/2" Octagon	No	Two	Two	.27	
4x1 1/2" Octagon	Yes	Two	Two	.32	
G.E. Cable Boxes for Straight Electric or Combination No. 5200-01					.20
Hope Cable Boxes for Straight Electric or Combination No. 2 & 4 & 14					.20
Thomas & Betts No. 565-66-67-68 Standard Cable Boxes					.22
Thomas & Betts No. 553-554 Dead Ground Cable Boxes					.35
Thomas & Betts No. 160-161 Flush Wall Type Cable Boxes					.50

BAR HANGERS FOR OUTLET BOXES
Boxes Extra

(With 1/4" Fixture Stud)	Price
(With 1/4" Stud add 5c ea.)	Margin
Straight Bar 18" Long	\$0.23
Straight Bar 24" Long	.30
Shallow Offset Bar 19 1/4" Long	.28
Shallow Offset Bar 24" Long	.35
Deep Offset Bar 19 1/4" Long	.28
Deep Offset Bar 24" Long	.35
Thomas Old Work Bar 12"	.15
Box Cleat Bar 21"	.12
Straight Saddle Bar	.20

SET-UP BOXES WITH BARS

Size	Ears	Clamps	Bush Plates	Galvd. Price
3 1/4"x1 1/4" Round	No	None	None	\$0.30
3 1/4"x1 1/4" Round	No	Two	None	.35
3 1/4"x1 1/4" Round	Yes	None	None	.35
3 1/4"x1 1/4" Round	Yes	Two	None	.40
For New Code Boxes				
3 1/4"x1 1/4" Oct.	Yes	Two	None	.45
3 1/4"x1 1/4" Oct.	Yes	Two	Two	.50
3 1/4"x1 1/4" Round	No	Two	None	.45
3 1/4"x1 1/4" Round	No	Two	Two	.45
4x1 1/2" Oct.	Yes	Two	None	.50
4x1 1/2" Oct.	Yes	Two	Two	.50
For Conduit				
4x1 1/2" Round	No	None	None	.30
4x1 1/2" Round	Yes	None	None	.35

BUSHINGS & LOCKNUTS

BUSHINGS & LOCKNUTS
For Rigid Conduit

	1/2"	3/4"	1"	1 1/4"
Locknuts—Each	\$.01	\$.01 1/2	\$.02 1/2	\$.05
Bushings—Each	.02	.02 1/2	.05	.08
Locknuts—Each	\$.08	\$.11	\$.19	\$.32
Bushings—Each	.10	.20	.30	.40

PORCELAIN CLAMP BUSHINGS

"Federal" or Equivalent

No.	K. O.	Inside Size	Outside Size	Wire Size	Bushing Each	Extra Ring Each
A-1	1/4"	1/4"	1/4"	No. 10	\$.08	\$.04
A-1 1/2	1/2"	1/2"	1/2"	No. 10	.10	.04
A-2	3/4"	3/4"	3/4"	No. 8	.10	.04
A-3	1"	1"	1"	No. 3	.12	.05
A-4	1 1/4"	1 1/4"	1 1/4"	No. 00	.15	.07
A-5	1 1/2"	1 1/2"	1 1/2"	450 CM	.22	.10
A-6	2"	2"	2"	1 Mill. CM	.45	.12
B-1	1/4"	1/4"	1/4"	No. 10	.20	.04
K-1	1/4"	1/4"	1/4"	No. 10	.32	.04
K-2	1/2"	1/2"	1/2"	No. 8	.37	.05

"MULTI" PORCELAIN CLAMP BUSHINGS

No.	Inside Size	Outside Size	For Wires	Price Each Complete
10	1/4"	1/4"	14 B & S	\$0.08
12	1/4"	1/4"	14 B & S	.12
15	1/4"	1/4"	14 B & S	.10
20	1/4"	1/4"	6 B & S	.10
30	1/4"	1"	2 B & S	.12
40	1 1/4"	1 1/4"	000	.20
50	1 1/4"	1 1/4"	350,000	.30
55	1 1/4"	1 1/4"	600,000	.38
60	1 1/2"	1 1/2"	1,000,000	.45

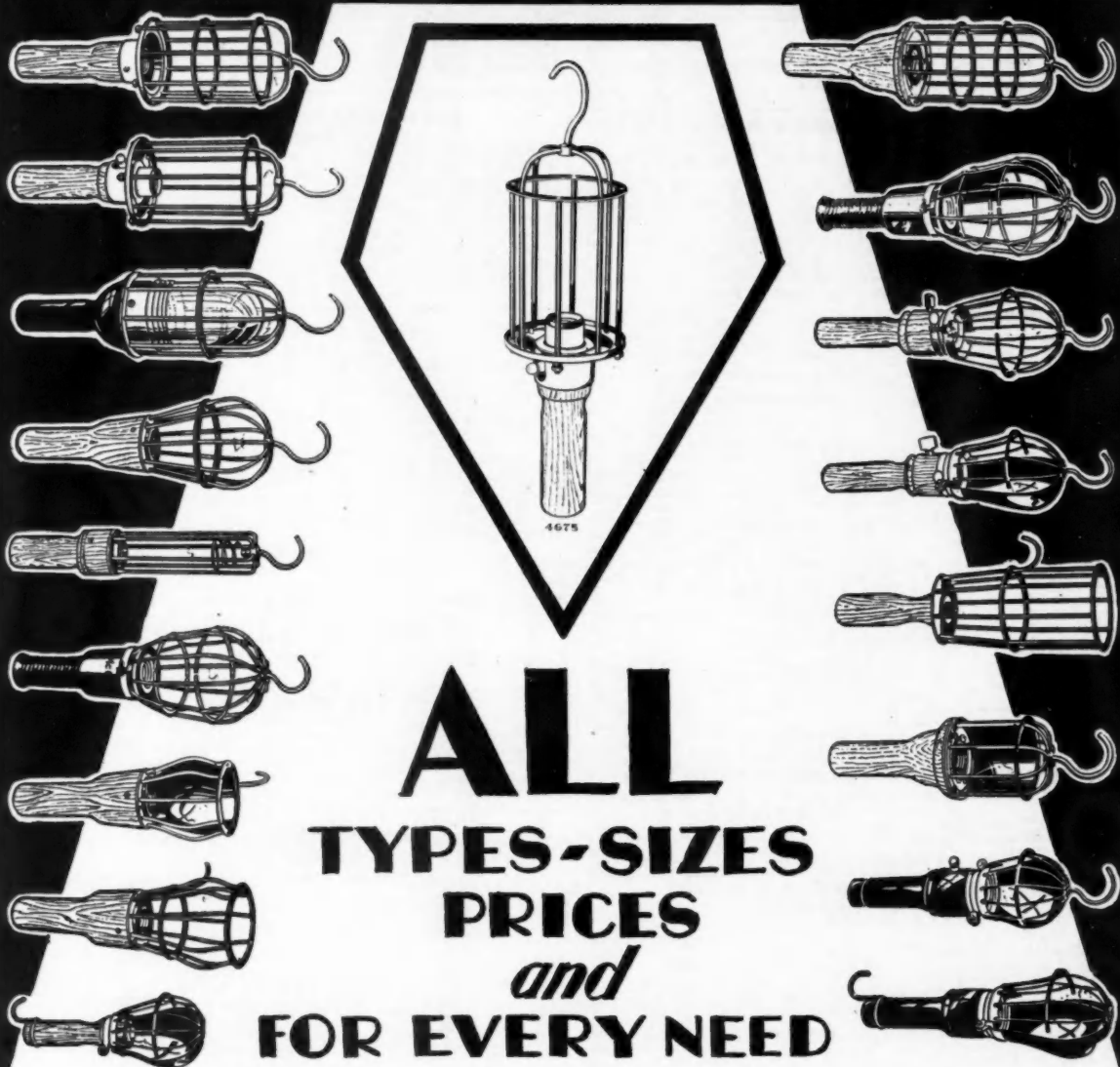
PORCELAIN NO CLAMP BUSHINGS

Multi- With Spring Clip, Not Threaded

Catalog No., Multi	90A	90B	91	92A	92B
Size of Hole	1/4"	1/4"	1/4"	1/4"	1/4"
To Fit Hole	1/4"	1/4"	1/4"	1/4"	1/4"
Price	\$.06	\$.06	\$.06	\$.07	\$.07

MCGILL

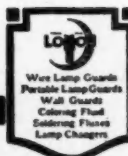
PORTABLE LAMP GUARDS



**RUBBER
HANDLES
ON
7000 TYPES
ONLY**



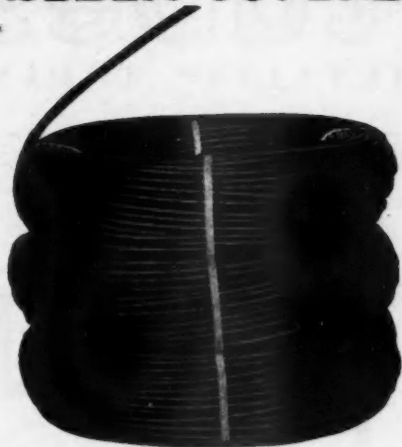
MCGILL
MANUFACTURING CO.
Electrical Specialties of Quality
ESTABLISHED 1904
VALPARAISO - INDIANA
Box 670



**WOOD
HANDLES
ON ALL
BUT 7000
TYPES**

Send for Complete Catalog

"AMERICORE" RUBBER COVERED WIRE



*used throughout
interior of Russ Building, San Francisco*

This is the largest office building west of Chicago. The fact that Americore was specified for the interior of this building emphasizes the approval given Americore by Architects and Engineers everywhere. Americore surpasses code requirements—its quality

is outstanding, having proved dependable and economical over a long period of years. When we say "use Americore for Safety," we simply pass on to you the service results of this rubber-covered wire. A complete range of sizes to meet all needs.

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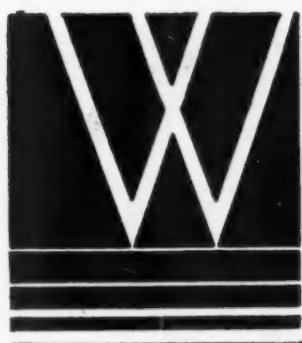
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What they say about Steeltubes

ELECTRICAL METALLIC TUBING

These paragraphs reflect the opinions of some of the users of Steeltubes Electrical Metallic Tubing.

“

“The electrical industry has needed this type of material. We believe its use will lower the cost of construction.”

“We like the ease with which Steeltubes bends. We believe it a big advance in our work.”

“Steeltubes is very superior on our work. We like the ease with which it bends... the time saved in threading.”

“We find Steeltubes entirely satisfactory for both concrete and open construction.”

“A great deal easier to handle because of less weight, and no threading.”

“The timesaved in threading alone is a big item.”

“Requires considerably less time to do the work than by the old method. Does not rust or corrode one-tenth as much as regular conduit did.”

“Our electricians like it because of its cleanliness.”

“Cuts our installation costs. No die stock or pipe stand to drag around.”

“We shall certainly continue to use Steeltubes throughout our plant.”

“Expect to continue to use Steeltubes as standard equipment on all installations.”

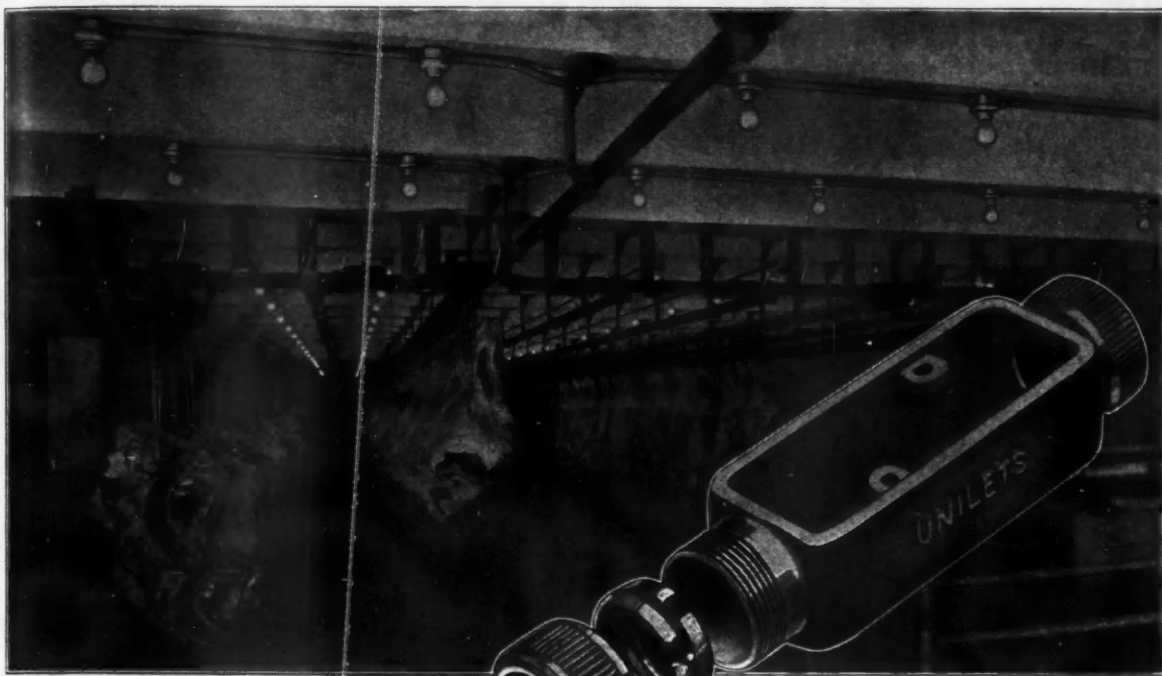
“We use a pocket knife to ream Steeltubes.”

“Steeltubes does not rust or corrode one-tenth as much as regular conduit does.”

”

Electrical Division **STEEL & TUBES, INC.** Cleveland, Ohio
A UNIT OF REPUBLIC STEEL CORP.

AN UNUSUAL INSTALLATION



Cooling room of a large Western packing company. Electrical installation by Reliable Electric Co., Denver.

In the Rectangular No-Thread Unilet above, note the contracting sleeve with the sharp beading inside that cuts through the conduit enamel and gives it a vice-like grip, after the knurled nut is tightened over the hub.

IN the cooling room illustrated above, a large number of lamp outlets were needed in short spaces, every receptacle being equipped with 25 watt lamps, and the fittings were spaced three feet apart in many rows. Large wattage lamps could not be used, because of too much heat.

This is the kind of a job on which Appleton No-Thread Unilets can save many hours of labor. The installation consisted of 300 Octagonal No-Thread Unilets and Receptacles—and an

excellent job was done at a great saving in installation time.

Appleton No-Thread Unilets are made of malleable iron (greater strength with lighter weight), there is maximum wiring space inside, the cadmium coating insures a rust-resisting surface, and they will last practically a lifetime.

Our new general catalog has complete information on Appleton No-Thread Unilets, as well as the entire Appleton line. Write for it today.

Appleton No-Thread Unilets are listed as Standard by Underwriters' Laboratories in 1/2-inch to 4-inch sizes, inclusive

APPLETON ELECTRIC COMPANY

1704 Wellington Ave., Chicago, U. S. A.

New York—150 Varick St.

San Francisco—655 Minna St.

Los Angeles—340 Azusa St.

Seattle—628 Railroad Ave.

Manufacturers of Appleton Constant Duty and Portable Type Reelists

SOLD
THROUGH
JOBBERs

APPLETON

No-Thread Malleable UNILETS

The Original Threadless Conduit Fittings



APPLETON ELECTRIC COMPANY
1704 Wellington Avenue, Chicago

Gentlemen:

Please send us a copy of New Revised Catalog on Unilets and Conduit Fittings.

Name

Address

City

State

PL-6

Boxes, Floor

THREADED COMPOSITION BUSHINGS									
Size	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"			
Without Locknut.....	\$.05	\$.11	\$.12	\$.14	\$.16	\$.30	\$.45	\$.80	
With Locknut.....	.08	.14	.15	.18	.25	.45	.70	1.10	
Socket Bushings									
Black Composition.....	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"			
For Sockets.....	\$.02	\$.02	\$.04	\$.06	\$.08	\$.10			

BOXES, FLOOR

NON-ADJUSTABLE TYPE

"Full- man" robe" Steel Fullman City Mfg. Co. Co.	Russell & Stoll	Description	Price
477 110	2590	Comp. Out. with Std. Rec. & Bell Nozzle	\$4.00
490 100	2590	" " " " " " " " " " " "	3.50
490 100	2590	Comp. Out. Less Std. Rec. less Nozzle	2.40
491 .....	.....	Comp. Out. with 20A. Polarz. Rec. & Plug Noz.	4.90
499 300	.....	Midjet Out. with 10A. Recept. No Nozzle	2.25
499 .....	.....	Square Out. Less Recept. with Bell Nozzle	4.30
496 .....	.....	Square Out. With 15 Amp. Rec. & Bell Nozzle	5.40
497 .....	.....	Sq. Out. With 25 A. Rec. & Large Bell Nozzle	8.60

ADJUSTABLE TYPE

400 120	2502	Complete-Shallow Box—Less Receptacle	\$4.30
400 .....	.....	Complete-Deep Box—Less Receptacle	5.25
401 130	.....	Complete-Shallow Box With Receptacle	5.35
401 .....	.....	Complete-Deep Box With Receptacle	6.30
420 .....	.....	Complete Large Size Box Without Receptacle	4.90
421 .....	.....	Complete Large Size Box With Receptacle	5.95

ADJUSTABLE GANG TYPE

441 251	2511	Single Gang Less Recept. with 1/2" Cover Plate	\$ 5.35
442 252	2512	Two " " " " " " " " " "	10.75
443 253	2513	Three " " " " " " " " " "	16.10
444 254	2514	Four " " " " " " " " " "	21.45
445	2515	Five " " " " " " " " " "	26.80
Extra for Brass Cover Plate and Receptacle..... Per Gang			1.25

G. E. & T & B BOXES

G. E.	T. & B.	Description	Price
8000	8000	Utility Outlet Box Non-Adjustable.....	\$1.00
8200	1700	Two Wire Flr. " " " " " " " " " "	4.00
8220-40	1701-2	Three " " " " " " " " " "	5.50
8300	1703	Extension " " " " " " " " " "	2.75
8400	1730-60	Two Wire " " " " " " " " " "	6.25
8420-40	1731-61-2	Three " " " " " " " " " "	7.25
8500	1733-63	Telo. or Signal Floor Box Adj.-Deep or Shallow..	5.00

"BUSHED ELBOWS"—"BULB TEES"—

FLOOR COUPLINGS

Bushed Elbows Iron.....	3/4"	1"	1 1/4"	1 1/2"
	\$0.60	\$0.80	\$1.15	\$3.45
"Bulb" Tees.....	3/4"	1"	1 1/4"	1 1/2"
	1.40	1.65	2.00	4.35
Floor Coupling Brass.....	3/4"	1"	1 1/4"	1 1/2"
	1.40	1.65	2.00	4.35

BOXES, CUTOUT

TYPE "A" STEEL SURFACE CUTOUT BOXES

Black

Width Length.		3"		4"		6"		8"		10"		12"		14"		16"		18"		20"		22"		24"		26"		28"		30"		32"		34"		36"		38"		40"		42"		44"		46"		48"		50"		52"		54"		56"		58"		60"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Short Side	Long Side	5	Deep	6	Deep	8	Deep	10	Deep	12	Deep	14	Deep	16	Deep	18	Deep	20	Deep	22	Deep	24	Deep	26	Deep	28	Deep	30	Deep	32	Deep	34	Deep	36	Deep	38	Deep	40	Deep	42	Deep	44	Deep	46	Deep	48	Deep	50	Deep	52	Deep	54	Deep	56	Deep	58	Deep	60	Deep																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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For Galvanized Boxes Add 25% to above prices.

BELLS & BUZZERS

Ansonia

Name	No.	Description	Buzzer	2 1/4"	3"	4"	Cow or Sleigh
Ansonia	656	Sgls. Coil Non Adjust.	\$.40	\$.45	.....	.....	.....
Ansonia	657	Dble. Coil Non Adjust.	.50	.55	.....	.....	.....
Ansonia	652	Dble. Coil Round Non Adjust.	.55	.60	.....	.....	.....
Wizard	650	Dble. Coil Non Adjust.	.90	.95	.....	.....	.....
Eureka	641	Dble. Coil Adjust. Class B.	.95	1.00	\$1.25	\$1.60	\$1.80
Aeae	631	Dble. Coil Adjust. Class A.	1.35	1.40	1.50	1.80	2.10
Eureka	621	Dble. Wood Box Bell	1.20	1.35	1.40	1.65	1.85
Monitor	658	Round Type Monitor	.....	1.80	.....	.....	.....

BELLS AND BUZZERS—Continued

Ansonia—Continued

Name	No.	Description	Buzzer	2 1/4"	3"	4"	Cow or Sleigh
Monitor	661	Round Type Monitor	\$1.50	.....	.....	.....	.....
Wizard	660	Comb. Bell & Buzzer	\$1.25	1.25	\$1.35	.....	.....
Wizard	655	Buzzer Oak Mat	1.70	.....	.....	.....	.....
Wizard	660	Watch Case Buzzer Round	1.25	.....	.....	.....	.....
Ansonia	663	Comb. Bell & Buzzer	1.00	1.00	1.10	.....	.....

Edwards

Name	No.	Size	Description	Price
Nubel	735	2 1/4"	Two Coil Non-Adjust.-Gray Enam. Bell	\$.65
"	736	2 1/4"	" " " " " " " " " "	.60
Dixie	720	2 1/4"	" " " " " " " " " "	.95
"	725	2 1/4"	" " " " " " " " " "	.90
Combelle	737	2 1/4"	Two Coil Non-Adjust.-Gray Enam. Bell & Buzzer	1.15
"	738	2 1/4"	Dble. Coil Non-Adjust.-Gray Enam. Two Bells	1.30
Cadet	710	2 1/4"	Two Coil-Class B-Adjust. Bell	1.00
"	715	2 1/4"	" " " " " " " " " "	.95
"	712	3"	" " " " " " " " " "	1.25
"	714	4"	" " " " " " " " " "	1.60
"	716	4"	" " " " " " " " " "	1.80
Buz-A-Bell	730	2 1/4"	Two-Coil-Class C Comb. Bell & Buzzer	1.20
Monitor	156	3"	Monitor Bell-Nickel Plated Gong	1.60
Bronx	750	1 1/4"	Nickel Watch Case Buzzer	1.25

Edwards—Lungen

No. 13 Bells

Size	Price
1"	\$2.00
1 1/2"	1.80
2"	1.90
2 1/2"	2.00
3"	2.20
4"	2.50
6"	3.50
Cow or Sleigh	2.25

No. 15 Buzzers

Size	No.	Price
1 1/4" x 1 1/4"	No. 0	\$1.55
2 1/4" x 1 1/4"	No. 1	1.60
2 1/4" x 1 1/4"	No. 2	1.70
3" x 2"	No. 3	2.00
3 1/2" x 2 1/2"	No. 4	2.30

Patrick & Wilkins

Iron Box Bells

Small 2 1/4" Iron Box Bell Non-Adjust. Dble. Magnet	\$.40
Small 3" Iron Box Bell Non-Adjustable Double Magnet	.55
Fancy Gong Cow or Sleigh Non-Adjust. Dble. Magnet	1.65
King Monitor Bell	1.60
6" Large Iron Box Bell for Battery Current	6.50
8"	8.00

Buzzers

No. 1 Small Iron Box Buzzer Non-Adjust. Dble. Magnet	\$.40
Watch Case Buzzer Nickelled	1.10
Midjet Buzzer Nickelled	1.90
Wood Box Buzzer	2.15
Flush Buzzer with Flush Plate	3.00

Wood Box Bells

Regular Type	Price	Large Type	Price
2 1/4" Regular	\$ 2.20	6" Regular	\$ 6.50
3" " "	2.25	8" " "	8.00
4" " "	2.65	10" " "	13.25
Standard Cow or Dinner	3.05	5" Dinner	11.40
3" Dinner	6.20	6" " "	13.30
4" " "	8.75	5" Cow	14.00
3" Cow	6.60	6" " "	16.00
4" " "	10.00		

Stanley & Patterson

Name	No.	Description	Buzzer	2 1/4"	3"
Competition	400-1	Dble. Coil Non-Adjust.	\$.60	\$.65	.....
Eclipse	200-3	" " " " " " " " " "	.90	.95	\$1.00
XXX	211-18	" " " " " " " " " "	.95	1.00	1.25
Marlo	221-29	" " " " " " " " " "	1.65	1.70	1.85
Eclipse	208	Comb. Bell & Buzzer	1.25	1.25	.....
Competition	402	" " " " " " " " " "	1.00	1.00	.....
Midjet	331-34	All Nickelled Bell	1.50	1.80	.....
P. R.	240	Watch Case Buzzer	1.25	.....	.....
P. R.	238	Monitor	.....	.....	1.50

Name	No.	Description	Buzzer	2 1/4"	3"	4"	Cow or Sleigh
Competition	400-1	Dble. Coil Non-Adjust.	.....	.....	.....	.....	.....
Eclipse	200-3	" " " " " " " " " "	.....	.....	.....	.....	.....
XXX	211-18	" " " " " " " " " "	.....	.....	.....	.....	.....
Marlo	221-29	" " " " " " " " " "	.....	.....	.....	.....	.....
Eclipse	208	Comb. Bell & Buzzer	.....	.....	.....	.....	.....
Competition	402	" " " " " " " " " "	.....	.....	.....	.....	.....
Midjet	331-34	All Nickelled Bell	.....	.....	.....	.....	.....
P. R.	240	Watch Case Buzzer	.....	.....	.....	.....	.....
P. R.	238	Monitor	.....	.....	.....	.....	.....

Schwarze and Liberty

Single Coil Bell or Buzzer No. 31 & 32	Buzzer	2 1/4"	3"	4"	Tea
	\$.55	\$.65	\$.70	\$1.50	\$1.35
Two Coil Bell or Buzzer No. 31-321	Buzzer	2 1/4"	3"	4"	Tea
	.60	.60	.55	.80	.....
Combination Bell & Buzzer No. 331-333	Buzzer	2 1/4"	3"	4"	Tea
	.90	.90	.....	.....	.....
Flush Type Buzzer No. 31S	Buzzer	2 1/4"	3"	4"	Tea
	1.25	.....	.....	.....	.....

SKELTON BELLS

Any Make

2 1/4"	3"	4"	5"	6"	8"	10"	12"
Faraday.....	\$5.70	\$6.00	\$7.00	\$9.40	\$10.60	\$25.00	\$31.00
Faraday Elks	5.25	5.50	6.60	7.75	8.75	14.25	27.50

Electrical Contracting, January, 1931

Push Buttons, Etc.

Brackets for Insulators

PUSH BUTTONS, TREADS, SPRINGS

STANDARD PUSHES AND TREADS

Description	Ans.	Edw.	Fara.	P&W	Price
Round 1 1/4" and 1 1/2" Stamped Brass.....	506	603	SP51	29	\$0.20
Round 2 1/4" Stamped Brass.....	527	600	SP50	27	.25
Round 2 1/4" with Card Holder Stamped Brass.....	507	601	SP57	25	.40
Rectangular 4x2" Stamped Brass.....	604	SP54	55	.40	
Rectangular 3 1/4x1 1/2" Stamped Brass.....	605	SP53	50	.40	
Oval 2 1/4x1 1/2" Stamped Brass.....	606	SP55	50	.30	
Oval 4 1/2x2" Stamped Brass.....	609	SP56	50	.45	
Pear Push Buttons—Wood or Composition.....	505	67	5-9	3	.60
Pear Push Buttons—Metal, Nickel or Brass.....	68	MP6	...	.85	
Desk Buttons—1/2" Hole—Nickel.....	562	59	7A	4	.75
Desk Buttons—1/2" Hole—Nickel.....	63	...	...	4	.65
Desk Buttons—1/2" Hole—Nickel.....	D33	620	5A	4	.45
High Voltage 1/4" Hole—110 Volts.....	85	...	855	2.40	
Table Clamp with Push Button.....	571	206	TC1	...	1.00
Floor Pushes Combination Nickel.....	560	235	CFP2	...	.85
Floor Treads—"Daisy" "Dixie".....	500	290	FT1	...	1.50
Wood Push Buttons.....	...	...	...	...	.20

BAKELITE OR COMPOSITION PUSHES

Round Plain 1 1/4" Diam.....	\$0.30	Rectangular Plain 1 1/2x3 1/4".....	\$0.40
Octagon Fancy 1 1/2x1 1/2" Diam.....	.85	Rectangular Fancy 1 1/2x3 1/4".....	.60
Oct. Card Holder 2 1/2x2 1/4" Diam.....	.40	Rec. Double Card Holder.....	.85

DESK PUSHES—COMPOUND

With Buttons

Make and Description	1	2	3	4	5	6
Edw. #146—Bakelite Block.....	\$2.10	\$2.50	\$3.20	\$3.65	\$4.50	\$5.25
Edw. #197 Less Cord Bake.Bl.....	3.50	4.75	6.00	7.25	8.50	9.75
Edw. #197 with 6" Cord Bake.Bl.....	4.05	6.10	7.75	9.45	11.15	12.85
Edw. #190 Wood—Less Cord.....	4.90	5.35	6.80	8.10	9.40	10.80
Edw. #190 Wood with Cord.....	4.45	6.65	8.35	10.30	12.05	13.90
Fara. #4C Wood Less Cord.....	2.00	2.30	2.60	3.05	3.50	3.90
Fara. #2A Wood Less Cord.....	4.90	7.00	8.50	10.60	12.40	13.80
Fara. B.D.P. Bake. Less Cord.....	3.50	4.75	6.00	7.25	8.50	9.75
Fara. M.D.P. All Metal Less Cord.....	6.00	11.00	16.00	21.00	...	...
P&W #4 Wood Less Cord.....	2.60	2.80	3.50	4.30	4.85	5.60
P&W #5 Wood Angle Less Cord.....	...	...	...	13.00	...	13.95
P&W #12 Wood Less Cord.....	3.90	4.25	5.45	...	...	6.00

DOOR AND WINDOW SPRINGS

Door Springs

Window Springs

Open Circuit Door Spring.....	\$0.40	Open Circuit Single.....	\$0.60
Closed Circuit Door Spring.....	.50	Open Circuit Double.....	.85
Open Circuit Make and Break.....	.50	Closed Circuit Single.....	1.00
Open Circuit Door Trip.....	1.00	Open Circuit Transom.....	1.60

OTHER PUSH BUTTONS

Ansonia

Round Stamped	Price	Round Cast	Price
514 1 1/4" Loose Back.....	\$0.30	511 1 1/4" Loose Back.....	\$0.90
515 2 1/4" Loose Back.....	.40	512 2 1/4" Loose Back.....	1.00
579 1 1/2" Flush Push.....	1.00	508-10 2 1/4" Loose Back.....	1.00
E33 1 1/2" Flush Push.....	1.00	540 2 1/4" Loose Back.....	.60
		550 2 1/4" Loose Back.....	.85
		570 2 1/4" Loose Back.....	.75

Other Ansonia Push Buttons, Etc.

F-33 Stamped Flush Push.....	\$0.70	545 Oblong 2 Gang for Cards.....	\$1.85
G-33 Stamped Diamond Push.....	.70	545 Oblong 3 Gang for Cards.....	2.65
521 Stamped Push.....	.75	545 Oblong 4 Gang for Cards.....	3.65
528-534 Stamped Push.....	.95	546 Oblong 1 Gang.....	1.65
536-537 Stamped Push Loose Back.....	1.00	547 Oblong 2 Gang.....	1.50
538 Stamped Oblong Push.....	1.25	548 Oblong 1 Gang.....	.75
541 Oblong for Card.....	1.65	549 Diamond Push.....	.70
544 Oblong for Card.....	1.20	578 Diamond Push.....	.75
Combination Floor Pushes Complete.....	573		2.50
700 1 Point Wood Base Switch.....			.45

Edwards

Round Desk Buttons

Oblong Push Buttons

621—1 1/4" Hole.....	\$1.40	602—2 Gang for Cards.....	\$1.00
622—1 1/2" Hole.....	1.45	607—Single for Cards.....	.40
625—3/4" Hole.....	.50	608—Single.....	.45
1786—2 1/2" Watertight.....	3.00	650—Single Solid Cast Brass.....	1.10

Partrick & Wilkins

Round Push Buttons

Stained Wood Push #2.....	\$0.15
Oak Wood Regular #1.....	.35
Oak Open, Closed and Dbl. Cont. #1.....	.65
Oak Triple Contact #1.....	.90
Cast Brass 1 1/4" Diam. #8.....	.55
Cast Brass 2 1/4" Diam. #9.....	.65

Oblong Pushes

16 Cast Brass 4 1/4x1 1/4" Screw Cap.....	\$1.55
31 Cast Brass 5 1/2x2 1/4" Screw Cap.....	2.15
44 Cast Brass 4 1/2" Screw Cap.....	1.40
708 Wrought Push and Speak 1 Pce.....	1.00
907 2 Button and Card Holder.....	2.15
908 3 Button and Card Holder.....	2.95
909 4 Button and Card Holder.....	4.55

Electrical Contracting, January, 1931

OTHER PUSH BUTTONS—Continued

Partrick & Wilkins

Desk Push Buttons

Car Push 1/4" Hole Black Center.....	\$0.45
Multiple 1/4" Hole Black Center.....	1.35
Pony 1/4" Hole Black Center.....	1.85

Pear Shape Pushes

Compound Maple 2 Button.....	\$2.00
Compound Maple 3 Button.....	3.00
Wood Rosettes for above.....	.40

MULTIPLE PUSH BUTTONS

Couch "Pushrites"

With Card Holders

Number of Buttons	Plain Base		Wood Base Type		Weighted Base		Flush Brass Plate Type	
	Number	Price	Number	Price	Number	Price	Number	Price
4	7900	\$ 3.25	7980	\$ 3.75	7940	\$ 5.00		
6	740	4.60	789	5.20				
8	7910	5.80	7990	6.85	7950	9.15		
12	7921	8.30	79010	9.60	7960	13.30		
16	7930	10.80	79020	12.45	7970	17.50		
20	793	13.30	7902	15.40	797	21.60		

COUCH UNMOUNTED PUSH BUTTONS "WORKRITES"

No. 97 for 1/4" Hole.....	\$0.50
Adaptor No. 0684 for same.....	.05

BRACKETS FOR INSULATORS

WOOD BRACKETS

	Each		Each
1 1/2" x 2" x 10".....	\$.08	1 1/2" x 2" x 12".....	\$.08
1 1/2" x 2" x 12".....	.08	2" x 2 1/4" x 12".....	.10
1 1/2" x 2 1/4" x 12".....	.08	2" x 2 1/2" x 12".....	.10
		2" x 3" x 12".....	.15

PINS

Locust 1 1/4" x 8".....	Each \$.06	Locust 1 1/4" x 9".....	Each \$.10
Oak 1 1/4" x 8".....	.05	Oak 1 1/4" x 9".....	.08

HOUSE BRACKETS WITHOUT INSULATORS

Peirce

No.	Light Type	Points	Price	No.	Heavy Type	Points	Price	No.	Corner Type	Points	Price
153	One	One	\$.25	154	One	One	\$.40	150	One	One	\$.30
253	Two	Two	.55	254	Two	Two	.80	242	Two	Two	.55
353	Three	Three	.90	354	Three	Three	1.10	342	Three	Three	.80

WIREHOLDERS WITH INSULATORS

Peirce

No.	Wires	Spacing	Price
1907	One	0"	\$.35
190	"	0"	.25
191	"	0"	.30
296	Two	0"	.55
299	"	0"	.55
394	Three	4 1/4"	.80
396	"	6"	.85

HOUSE RACKS WITH INSULATORS

Peirce

No.	Wires	Length	Space	Price
183	1	6 1/4"	0"	\$.40
286	2	12 1/2"	0"	.80
383	3	12 1/2"	3"	.95
388	3	18 1/4"	6"	1.20

SECONDARY RACKS WITH INSULATORS

Peirce

Light Type					Heavy Type				
No.	Wires	Space	Price	No.	Wires	Space	Price		
276	2	6"	\$.90	278	2	8"	\$1.30		
278	3	6"	1.30	278	3	8"	2.15		
1276	2	6"	1.85	1278	2	3"	1.20		
1876	3	6"	1.20	1874	3	4"	1.35		
2768	2	8"	.90	1978	3	8"	2.00		
3768	3	8"	1.30						

INSULATORS ONLY FOR ABOVE BRACKETS

Peirce

855 Insulator.....	\$.15	1602 Insulator.....	\$.15
366 ".....	.25	1603 ".....	.10

PL-8

Brackets

HOUSE BRACKETS WITHOUT INSULATORS
National Elec. Products

Light Type			Heavy Type			Corner Type		
No.	Points	Price Each	No.	Points	Price Each	No.	Points	Price Each
108-10	1	\$.25	109-10	1	\$.45	111-10	1	\$.20
108-26	2	.55	123-6-7	1	.40	111-50	1	.60
108-29	2	.60	109-26	2	.80	111-29	2	.60
108-36	3	.95	109-36	3	1.15	111-36	3	.85

HOUSE RACKS WITH INSULATORS
National Elec. Products

Light Type			Heavy Type		
No.	Points	Length	No.	Points	Length
104-10	1	5 1/2	101-24	2	9 1/2
104-26	2	11 1/2	101-28	"	13 1/2
104-33	3	11 1/2	101-34	3	13 1/2
104-36	"	18	101-38	"	21 1/2
104-53	5	18	101-44	4	17 1/2
104	Insulator Only		101-54	5	21 1/2
			101	Insulator Only	

WIREHOLDER ACCESSORIES
National Elec. Products

No. 5000 Corner Chair	\$.13	No. 5040 Break Arm Strap	\$.14
No. 5020 Insulator	.18	No. 5051 " " Bolt	.20
No. 5021 U Bolts & Nuts	.10	No. 5052 T Head Screw	.08

SINGLE POINT SCREW BRACKETS
National Elec. Products

No.	Price	No.	Price	No.	Price
5211	\$.20	5311	\$.14	5411	\$.25
5211L	.22	5311L	.15	5411L	.28
5213	.25	5313	.20	5413	.30
5213L	.28	5313L	.22	5413L	.35

WIREHOLDERS WITH INSULATORS
National Elec. Products

For One Wire		For Two Wires		For Three Wires	
No.	Each	No.	Each	No.	Each
No. 5011	\$.28	No. 5002	\$.60	No. 5003	\$.85
No. 5001	.25	No. 5012	.55	No. 5023	.80

WIREHOLDERS WITH INSULATORS
National Elec. Products

Light Type			Heavy Type		
No.	Points	Length	No.	Points	Length
105-1X	1	6"	106-1	1	6"
105-1	1	4 1/2"	106-10	1	6"
105-10	1	4 1/2"	106-28	2	11 1/2"
105-26	2	10 1/2"	106-29	2	14 1/2"
105-29	2	13 1/2"	106-36	3	17 1/2"
105-34	3	13 1/2"	106-36X	3	17 1/2"
105-36	3	16 1/2"	106	Insulator Only	
105	Insulator Only				

B-SUNDRIES, BOLTS, ETC.

CARRIAGE BOLTS
Galvanized

Length		Diameter	
3"	4"	5"	6"
3/4" Diam. Each	\$.05	\$.05	\$.05
1/2" " " "	.08	.09	.10

MACHINE BOLTS WITHOUT WASHERS
Galvanized

Length		Diameter	
3"	4"	5"	6"
3/4" Each	\$.05	\$.06	\$.07
1/2" " " "	.08	.09	.10
1/4" " " "	.12	.13	.14
3/8" " " "	.15	.16	.17

STOVE BOLTS

Round or Flat Head

Length		Diameter	
3"	4"	5"	6"
Up to 1"	\$.10	\$.10	\$.10
1 1/4" to 1 1/2"	.10	.10	.10
1 3/4" to 2"	.10	.10	.10
2 1/4" to 3"	.11	.11	.11
3 1/4" to 4"	.12	.12	.12

TOGGLE BOLTS, STEEL

"Paine"

Length		Diameter	
3"	4"	5"	6"
3/4" Long Price Each	\$.10	\$.10	\$.10
1 1/4" " " "	.10	.10	.10
1 3/4" " " "	.10	.10	.10
2 1/4" " " "	.11	.11	.11
3 1/4" " " "	.12	.12	.12

NOTE: For Brass Toggle Bolts—2 1/2 times above prices.

ROUND FIXTURE BLOCKS
Solid Half or Full Plowed

3" x 4" Round	4 x 5" Round	5 x 6" Round
\$.12	\$.15	\$.18
Ceiling Button—P & S Porcelain No. 170—Each		
Switch Bases—See Snap Switches Page PL-19.		

CORDS, FIXTURE, LAMP AND HEATER

SINGLE FIXTURE CORD

Single Lamp Cord		Price Per Foot	
Type	No. 18	No. 16	No. 14
Single Cotton Covered Cord—Light	F-64	\$.01	\$.02
Single Cotton Covered Cord—Heavy	F-32	.01 1/2	.02
Single Artificial Silk Cord—Light	F-64	.01 1/2	.02 1/2
Single Artificial Silk Cord—Heavy	F-32	.01 1/2	.03

DOUBLE LAMP CORD

Regular Lamp Cord		Price Per Foot	
Type	No. 18	No. 16	No. 14
Cotton Covered Twisted Pair	C	\$.02	\$.02 1/2
" " Parallel Pair	PO	.02 1/2	.04
" " Twisted Parallel Pair	PD	.03	.05
Artificial Silk Twisted Pair	C	.02 1/2	.04
" " Parallel Pair	PO	.02 1/2	.05

x P. D. Cord is not listed in N. E. C. Code Approved Cords.

REINFORCED CORD

Not Asbestos		Price Per Foot	
Type	No. 18	No. 16	No. 14
Cotton Covered Light Type 1/4"	PS	\$.03	\$.04
" " Heavy 1/4"	P	.04	.05
Weatherproof Light Type 1/4"	PSWP	.03 1/2	.04
" " Heavy 1/4"	PWP	.04	.05

HEAVY DUTY PORTABLE CORD

"Duracord" or Similar. Extra Reinforced

Type PS Light 3 Cond. Port. Cord		Price Per Foot	
No. 18	No. 16	No. 14	No. 12
" P Heavy 3	\$.08	\$.11	\$.13
" P Heavy 3	.11	.13	.17
" P Heavy 3	.14	.22	.26

ALL RUBBER CORD

"Tirex" "Royal" "Super-Service" "Indestructo" or Similar

Type A Asbestos Braid overall Locs		Price Per Foot	
No. 18	No. 16	No. 14	No. 12
SJ Junior 2 Conductor Black	\$.07	\$.09	\$.11
" " 2 " Green	.09	.12	.14
" " 2 " Black	.12	.14	.16
S Type Heavy 2 Conductor Black	.11	.15	.17
" " 3 " "	.13	.16	.22
" " 4 " "	.15	.19	.27
" " 5 " Sgle. Cond. Black	.07	.08	.10

HEATER CORD

Asbestos Covered		Price Per Foot	
No. 18	No. 16	No. 14	No. 12
Stand. Twisted or Wound Asbest. 1/4"	\$.05	\$.05	\$.08
American Beauty Heater Cord Super			
Flexible	.00	.12	.21
Rockbestos Heater Cord	.07	.07 1/2	.10
Universal No. 9092 Super Flexible	.00	.08	.10

"Deltabeston" Heater Cord		Price Per Foot	
No. 18	No. 16	No. 14	No. 12
Type A Asbestos Braid overall Locs	\$.09	\$.10	\$.11
Cab Cord	.07	.08	.10
" C Cotton Braid overall	.07	.09	.10
" D " " on ea. cond.	.07	.09	.10
" E Cotton on ea. Cond. & over both	.08	.10	.11

NOTE—For Armored Cords See Page PL-9.

"Extension Cords See Page PL-10.

"Fixture Wire See Pages PL-26 & 27.

"Bell Wire See Page PL-27.

MISCELLANEOUS CORD

Description		Price Per Foot	
Type	No. 18	No. 16	No. 14
x Brewery Cord	CC	\$.03	\$.04
x Canvasite Cord	CC	.05	.06
x Deck Cable	PWP	.05	.07
x Packinghouse Cable	PKWP	.05	.06
x Stage & Theatre Cable	T	.05	.06
Type "K"	K	.05	.06

Type "K" replaces Brewery, Canvasite and Packinghouse Cable. They are not included in present listing of N. E. C. Code Approved Cords.

x Note—These prices are based on less than coil lot trade prices.

CONDUCTING BELL CORD

Spun Silk

Number of Conductors		Price Per Foot	
2	3	4	5
Cond. Cond. Cond. Cond.	\$.06	\$.15	\$.20
Cond. Cond. Cond. Cond.	.21	.25	.35
Cond. Cond. Cond. Cond.	.50	.50	.70

Note—For Armored Lamp Cord See Page PL-9.

Electrical Contracting, January, 1931

CONDUIT, ELBOWS, COUPLINGS, BUSHINGS, ETC.

RIGID CONDUIT

	Black Per Foot	Galvd. Per Foot	Cutting & Threading Per Thread	Cutting Only Per Cut
1 ^{1/2"}	\$.10	\$.11	\$.30	\$.10
1 ^{3/4"}	.12	.13	.30	.10
2 ^{1/4"}	.17	.19	.33	.10
2 ^{3/4"}	.25	.27	.30	.15
3 ^{1/4"}	.30	.32	.35	.15
3 ^{3/4"}	.40	.43	.40	.20
4 ^{1/4"}	.60	.68	.50	.30
4 ^{3/4"}	.80	.88	.60	.30
5 ^{1/4"}	1.02	1.10	.70	.30
5 ^{3/4"}	1.25	1.35	.80	.30

THIN WALL CONDUIT

	1/2"	3/4"	1"
Threadless Thin Wall Conduit, Per Foot.....	\$.09	\$.12	\$.16
Adaptor, Each.....	.08	.12	.20
Coupling or Connector, Each.....	.22	.30	.40

Note—One Coupling with Bushings is Included with Each 10 Foot Length of Conduit.

**ELBOWS OR BENDS, COUPLINGS, OR UNIONS,
BUSHINGS, LOCKNUTS, REDUCERS**

Price Each

Size Each	Bends or Elbows		Couplings		Bushings		Locknut		Erickson Coupl. or Unions	
	Black	Galv.	Black	Galv.	Galv.	Galv.	Galv.	Galv.	Galv.	Reducers
1/2"	\$.16	\$.19	\$.10	\$.11	\$.02	\$.01	\$.40	\$.21		
3/8"	.21	.24	.14	.15	.02 1/2	.01 1/2	.55	.21		
1"	.32	.37	.18	.20	.05	.02 1/2	.75	.28		
1 1/4"	.41	.46	.24	.26	.08	.05	1.20	.42		
1 1/2"	.54	.62	.30	.32	.10	.08	1.66	.56		
2"	.88	1.00	.40	.43	.20	.11	3.25	.70		
2 1/2"	1.45	1.65	.55	.62	.30	.19	6.40	1.80		
3"	3.70	4.25	.74	.81	.40	.32	9.75	1.76		
3 1/2"	8.10	9.30	1.00	1.10	.88	.46	.....	2.60		
4"	9.40	10.75	1.25	1.35	1.40	.58	.....	3.58		

Also on Page PL-10.

Also on Page PL-5.

Also on Page PL-12.

FLEXIBLE METALLIC CONDUIT

"Greenfield", "Flexsteel", or Equivalent

	1/8"	3/16"	1/4"	3/8"	1"	1 1/4"	1 1/2"	2"
Single Strip Per Foot...	\$.09	\$.12	\$.14	\$.19	\$.40	\$.45	\$.64	\$.79
Double Strip Per Foot...	.11	.14	.17	.23	.42	.50	.71	.89

For Fittings for Metallic Conduit See Page PL-14.
 For Non-Metallic Conduit or Loom See Page PL-15.
 For Steel Armored Cable & Lead Covered See Next Item.

CABLE, ARMORED & NON-METALLIC SHEATHED

ARMORED CABLE, "BX", "ABC", "FLEXSTEEL", OR
SIMILAR

			Price Per Foot		
			No. 14	No. 12	No. 10
TWO CONDUCTOR	Solid	Single Strip	\$.05	\$.09	\$.12
THREE CONDUCTOR	Stranded	" "			
FOUR CONDUCTOR	Solid	" "	.09	.11	.15
ONE CONDUCTOR	Stranded	" "			
ONE CONDUCTOR	Solid	" "	.19	.23	...
ONE CONDUCTOR	Solid	" "	.10	.11	.12
ONE CONDUCTOR	Stranded	" "			.13
OVALFLEX	2 Conductor	" "	.07	.11	.13
	3 Conductor	" "	.10	.14	...

			Price Per Foot		
			No. 8	No. 6	No. 4
TWO CONDUCTOR	Solid	Single Strip			
THREE CONDUCTOR	Stranded	" "	\$.19	\$.28	\$.43
FOUR CONDUCTOR	Solid	" "	.23	...	...
ONE CONDUCTOR	Stranded	" "	.24	.34	.56
ONE CONDUCTOR	Solid	" "			...
ONE CONDUCTOR	Solid	" "	.13	.16	...
ONE CONDUCTOR	Stranded	" "	.14	.17	.30
OVALFLEX	2 Conductor	" "			...
	3 Conductor	" "			...

Double Strip Armored Cable add 30% to above prices.

Anti-Short Fibre Bushings for ABC Cable, Each.....	\$.01
Clips or Staples 3/4" for Armored or Non-Metallic Cable, Each.....	.01

"ABC" LEAD COVERED ARMORED CABLE

				Price Per Foot		
				No. 14	No. 12	No. 10
Single Conductor	Solid Lead	Covered	.....	\$ .12		
"	" Stranded	"	.....		
Two Conductor	Solid	"	.....	.18	\$.22	\$.28
"	" Stranded	"	.....		
Three	" Solid	"	.....	.26	.31	.37
"	" Stranded	"	.....		

				Price Per Foot		
				No. 8	No. 6	No. 4
Single Conductor	Solid Lead	Covered	.....	\$ .18	\$.25	
"	" Stranded	"	.....		
Two	" Solid	"	.....	.40	.54	
"	" Stranded	"	.....		
Three	" Solid	"	.....	.55	.75	\$1.00
"	" Stranded	"	.....		

"ABC" ARMORED LAMP CORD

	Per Foot		
Single Strip	No. 18	No. 16	No. 14
Plain Armored Lamp Cord, Two Conductor.....	\$.12	\$.13	\$.18
Add 30% for Double Strip			

NON-METALLIC SHEATHED CABLE
"Romex", "Loomwire", "Wireflex", or similar

(With or Without Ground Wire)	#14	#12	#10	#8	#6	#4
Wire 2 Conductor per Foot.....	\$0.05	\$0.06½	\$0.09	\$0.13	\$0.19	\$0.25
Wire 3 Conductor per Foot.....	.08	.10	.13	.20	.27	.38
Fitting-Straps Each.....	.01	.01	.01	.01	.01	.01
Fitting-Clips Each.....	.03	.03	.03	.....	.....	.....
Fitting-Connectors Each.....	.10	.10	.20	.20	.30	.55

CUTOUTS OR FUSE BLOCKS

PLUG CUTOUTS

30 Amp. Porcelain

Description	Price
Single Pole—Main Line.....	\$.2569
" Double " " ".....	.35
" Triple " " ".....	.50
Double Pole Single Branch.....	.82165
" Double " " ".....	.82165
" Single or Double Cross Branch.....	.8020
Triples to D. P. Double Branch.....	.62199
Triples Pole Single Branch.....	.8042
" Double " " ".....	.82135

DEAD FRONT CUTOUT BASES

Plug Type—30 Amp.

BRYANT		With Short Cover Numbers Price		With Long Cover Numbers Price	
3 Wire Double Branch—4 Circuit..		72035	\$3.35	82035	\$3.65
G. E. or TRUMBULL		With Covers G.E. Trumbull		Without Cov. G.E. Trumbull	
3 Wire Single Branch—2 Circuit..		2435	3199	\$1.35	\$4.85
3 " Double " —4 " "		2440	4199	1.80	4.85

ENCLOSED CARTRIDGE CUTOUTS OR BASES

	0-30 Amp.	31-60 Amp.	61-100 Amp.
Porcelain Base, 250 Volts			
Single Pole Main Line Enclosed Porcelain.....	\$.40	\$.85	\$ 1.30
Double " " " "	.55	1.20	2.30
Triple " " " "	.85	1.65	3.30
Double Pole Single Branch Porcelain .....	.75	1.60	..
" Double " " " "	1.25	3.30	..
Triple to Double Pole Double Branch Porcelain ..	1.30	3.80	..
Triple Pole Single Branch Porcelain	3.30	..	..
Triple Pole Double Branch Porcelain	2.40	5.40	..
Single Pole Main Line Cutout Base 600 Volt.....	.70	1.00	1.90

SLATE BASE

250 Volt	600 Volt	30 A	60A	100A	200A.	400A.	600A.
Single Pole-Slate Base-250 V.....	\$.60	\$.90	\$1.25	\$2.10	\$5.20	\$ 6.60	
" " " " 600 V.....			1.60	2.60	6.00	7.15	

Prices on cutouts do not include fuses

C-SUNDRIES

GROUND CLAMPS

	1/2 to 1"		1/2 to 2"		1/2 to 3"		1/2 to 4"	
Standard Adjustable Ground Clamps, any make	No. 3	No. 4	No. 5	No. 6	No. 5	No. 6	No. 5	No. 6
Blackburn.....	\$.24	\$.28	\$.24	\$.35	\$.35	\$.45		
B & J								
Other Types	1/2"	3/4"	1"	1 1/2"	1 1/2"	2"	2 1/2"	3"
Chase Shawmut 3660-65	\$.25	\$.30	\$.35	\$.45	\$.50	\$.60	\$.65	\$.70
G. V. A Series 5000...	.25	.30	.35	.45	.50	.60	.65	.70

STRAPS, CLIPS OR CLAMPS For Pipe, Without Screws

	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/4"	3"
Galvnd. Straps, 2 Hole Per Pound.....	\$.01	\$.01	\$.01	\$.02	\$.02	\$.04	\$.05
No. Straps per Pound.....	45	40	25	20	13	7	5
Light Steel Straps, 1 Hole	.04	.05	.06	.08			
Mail, Iron Clamps, 1 Hole	.06	.07	.08	.11	.18	.25	.45
P & S Conduit Clamps						.60	.80
With Bolts-Size 1400		.10	.14	.18	.20	.25	

(See Also Page PL-25)

COLORING & FROSTING LIQUID

	7 ounce Cans	15 ounce Cans	30 ounce Cans	$\frac{1}{2}$ Pint Bottle	1 Pint Bottle	Quart Bottle
Crescent (McGill).....	\$2.50	\$4.00	\$7.50	\$1.25	\$2.50	\$5.00
Cisco.....				1.25	2.25	4.00
Franco.....				1.65	3.00	5.00
Permacolor.....						
Clips for Loom.....					3c each or 2 for 5c	
Crowfoot.....			$\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$	\$.05 Each	$\frac{1}{2}$ or 2 for 10c	

CORD & WIRE CONNECTORS

SMALL FIXTURE & WIRE CONNECTORS

Solderless

Insulated Solderless Wire or Fixture Connectors Similar to "Ideal"
"Marr" "NoTorch" "Simplex" "Wirelets" "Wirenuts" Etc.—each .10
Non-Insulated Solderless Wire Connectors—2 Screw—All Metal..... .10

SET SCREW CONNECTORS

Round Brass

	Wire Size	No. 12-14	No. 10	No. 8	No. 6	No. 4
Divided Wall—2 Screws.....		\$.06	\$.08	\$.10	\$.12	\$.14
Hole Thru 2 ".....		.11	.12	.13	.15	.17
" 4 ".....						.20
	Wire Size	No. 2	No. 1/0	No. 2/0	No. 3/0	No. 4/0
Divided Wall—2 Screws.....		\$.15	\$.20	\$.26	\$.32	\$.50
Hole Thru 2 ".....		.20	.24	.30	.45	.60
" 4 ".....		.22	.28	.30	.45	.60

SOLDERLESS CONNECTORS

Dossert or Penn-Union

Size Cond.....	No. 3 to 1	No. 1/0	No. 2/0	No. 3/0	No. 4/0	No. 250,000	No. 300,000	No. 400,000	No. 500,000
2 Way L's.....	\$0.75	\$0.80	\$1.00	\$1.20	\$1.40	\$1.65	\$1.90	\$2.50	\$2.95
Cable Taps.....	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
3 Ways & Y's.....	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
Lugs FB Ang.....	.55	.60	.70	.90	1.10	1.20	1.40	1.85	2.40

CORD & MOTOR CONNECTORS

	Complete	Body Only	Cap Only
Arrow	No.	No.	No.
Midjet Comp. 8238	\$.50	.....	.....
" " 8239	.75	.....	.....
Motor Conn. RP-8221	.55	8221	RP .12
" " RL-8221	.60	8221	RL .20
" " RA-8222	.55	8222	RA .13
" " RM-8222	.65	8222	RM .25
" " TM-8222	.70	8222	TM .25
" " RH-8224	.90	8224	RH .35
" " RG-8281	.90	8281	RG .35
" " 8334 & 35	.90	.....	.....
Bryant	No.	No.	No.
Motor Midjet KR-130	.60	130	KR .20
" " KG-103	.70	103	KG .25
" " KT-130	.85	130	KT .15
GE	No.	No.	No.
Cord Connector 1346-1347	.90	1647	.45 6146 .50
Hubbell	No.	No.	No.
Cord Connector 5594	.80	5574	.55 5906 .30
" " 6116	.70	6118	.55 5964 .15
" " 6179	.75	6630	.55 6631 .20
" " 6180	.65	6630	.55 6181 .10
" " 5518	.80	5574	.55 5420 .25
" " 7083	1.35	7084	.85 7056 .55
" " 7090	1.80	7091	1.10 7092 .75
" " 6408	1.25	6409	.85 6149 .45
Weber	No.	No.	No.
Cord Connector 2274	.60	.74	.45 2200 .20
Wirt	No.	No.	No.
Cord Connector .56	.55	.....	.....

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17

E-SUNDRIES

EXTENSION CORDS—MADE UP

With Plug & Socket, but Guards-Lamps & Handles Extra

Length in Feet	With Lamp Cord and Key Socket No. 18		With Reinforced Cord and Key Socket No. 18		With Artificial Silk Cord and Key Socket No. 18		Twist. or Paraf. No. 18	
	No. 18	No. 16	No. 18	No. 16	No. 18	No. 16	No. 18	No. 16
4 Foot.....	.75	.80	.85	.80	.85	.85	.85	.85
6 ".....	.80	.90	.95	.90	.95	.95	.95	.95
8 ".....	.85	1.00	1.05	1.00	1.05	1.05	1.05	1.05
10 ".....	.90	1.10	1.20	1.10	1.20	1.20	1.20	1.20
12 ".....	.95	1.20	1.30	1.20	1.30	1.30	1.30	1.30
14 ".....	1.00	1.30	1.45	1.30	1.45	1.45	1.45	1.45
16 ".....	1.05	1.40	1.55	1.40	1.55	1.55	1.55	1.55
18 ".....	1.10	1.50	1.65	1.50	1.65	1.65	1.65	1.65
20 ".....	1.15	1.60	1.75	1.60	1.75	1.75	1.75	1.75
22 ".....	1.20	1.65	1.85	1.65	1.85	1.85	1.85	1.85
24 ".....	1.25	1.75	1.95	1.75	1.95	1.95	1.95	1.95
Length in Feet	With All Rubber Cord and Weatherproof Socket		Light		Heavy			
	No. 18	No. 16	No. 18	No. 16	No. 18	No. 16	No. 18	No. 16
4 Foot.....	\$1.00	\$1.10	\$1.15	\$1.25	\$1.20	\$1.30	\$1.35	\$1.45
6 ".....	1.20	1.30	1.40	1.50	1.35	1.50	1.65	1.75
8 ".....	1.35	1.50	1.65	1.75	1.50	1.70	1.90	2.00
10 ".....	1.50	1.70	1.90	2.00	1.75	1.90	2.15	2.25
12 ".....	1.75	1.90	2.15	2.25	1.90	2.10	2.40	2.50
14 ".....	1.90	2.10	2.40	2.50	2.10	2.30	2.65	2.75
16 ".....	2.10	2.30	2.65	2.75	2.25	2.50	2.90	3.00
18 ".....	2.25	2.50	2.90	3.00	2.40	2.70	3.15	3.25
20 ".....	2.40	2.70	3.15	3.25	2.65	2.90	3.40	3.50
22 ".....	2.65	2.90	3.40	3.50	2.80	3.10	3.65	3.75
24 ".....	2.80	3.10	3.65	3.75				

ELBOWS & BENDS

For Rigid Conduit

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"
Black.....	\$.16	\$.21	\$.32	\$.41	\$.54
Galv.....	.19	.24	.37	.46	.62
Size	2"	2 1/2"	3"	3 1/2"	4"
Black.....	\$.88	\$1.45	\$3.70	\$8.10	\$9.40
Galv.....	1.00	1.65	4.25	9.30	10.75

EXPANSION SHIELDS & ANCHORS

(Ackerman—Diamond—Dryvin—Johnson—Packtite—Paine—Star or Similar)

Screws Not Included.

Expansive Screw Anchors or Caulking Anchors for Machine Screws or Bolts.	Price	Size of Shield	Hammer Drive Anchors With Nail	Price
Size Screw or Bolt				
6-32 Screw.....	\$0.06	1/4" x 1 1/4"	.....	\$0.06
8-32 ".....	.07	1/4" x 1 1/4"	.....	.07
10-24 ".....	.08	1/4" x 1 1/4"	.....	.08
12-24 ".....	.10	1/4" x 1 1/4"	.....	.10
1-4x20 Bolt.....	.12	1/4" x 1 1/4"	.....	.12
5-16x18 ".....	.15	1/4" x 1 1/4"	.....	.15
3-8x16 ".....	.18	1/4" x 1 1/4"	.....	.18
7-16x14 ".....	.20	1/4" x 1 1/4"	.....	.20
1-2x13 ".....	.20	1/4" x 1 1/4"	.....	.20
5-8x13 ".....	.30	1/4" x 1 1/4"	.....	.30

Multi-Size Screw Anchors

Length of Anchor.....	Screw Size	Price Without Screw.....
	5 to 10 1/4"	\$0.04
	8 to 14 1"	\$0.05
	16 to 20 3/4"	\$0.06
	24 to 30 1 1/4"	\$0.08

LAG SCREW ANCHORS (Diamond or Similar)

Takes Lag Screw.....	1/2"	3/4"	1"	1 1/4"	1 1/2"
Price Without Lag Screw.....	\$.15	.15	.18	.25	.35
Takes Lag Screw.....	.40	.60	.90	1.10	1.30
Price Without Lag Screw.....	.40	.60	.90	1.10	1.30

FUSES

PLUG FUSES

Standard Plug Fuses—Any Make—\$.07 each or 5 for \$.35
(Some Manufacturers put these fuses up 4 in a box, in which case they should be retailed at 4 for \$.25.)

ENCLOSED FUSES, NON-RENEWABLE

Amps.	Non-Indicating		Indicating	
	Price Each		Price Each	
	250 Volts Fuse	600 Volts Fuse	250 Volts Fuse	600 Volts Fuse
1 to 30.....	\$.10	\$.30	\$.20	\$.40
35 to 60.....	.20	.40	.35	.65
70 to 100.....	.60	1.10	.95	1.75
110 to 200.....	1.20	1.85	1.85	2.90
225 to 400.....	2.15	4.10	3.35	6.35
450 to 600.....	4.10	6.00	6.35	9.25
650 to 800.....	8.95	11.00	13.85	17.35

RENEWABLE FUSES

RENEWABLE FUSES				
	Fuses		Links	
Amps.	250 Volts	600 Volts	250 Volts	600 Volts
1 to 30.....	\$.50	\$ 1.10	\$.03	\$.05
35 to 60.....	1.00	1.25	.05	.06
65 to 100.....	2.00	3.00	.10	.10
110 to 200.....	4.00	5.00	.15	.15
225 to 400.....	7.50	11.00	.30	.30
450 to 600.....	11.00	16.00	.60	.60

FUSE WIRE

FUSE WIRE					
Size in Amps.....		1/4	1/2	1	2
Price Per Pound.....		\$65.00	\$6.00	\$9.60	\$9.20
Price Per Foot.....		.01	.01	.01	.01
Size in Amps.....	3	5	6	10	15
Price Per Pound.....	\$1.90	\$1.50	\$1.50	\$1.25	\$1.25
Price Per Foot.....	.01	.01 1/4	.02	.02 1/4	.03
Size in Amps.....	20	25	30	40	50
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Price Per Foot.....	.04	.05	.07	.08	.10
Size in Amps.....	60	70	75	80	100
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Price Per Foot.....	.15	.20	.21	.22	.25
Fuse Strip Any Amperage..... \$1.00 per lb.					

Fuse Strip Any Amperage....\$1.00 per lb.

OPEN LINK FUSES

Small Wire Type

Size in Amps.....	1 to 30	35 to 60	65 to 100
Numbers.....	00-0-1-2-3	2-3-5	5
Price Each.....	\$.10	\$.14	\$.20

Large Strip Type

Size in Amps.....	25-100	110-300	325-400
Numbers.....	7	7 to 16	10 to 16
Price Each.....	\$.20	\$.30	\$.60
Size in Amps.....	425-600	600-800	800-1500
Numbers.....	10 to 16	25	40
Price Each.....	\$1.00	\$1.75	\$6.55

STAMPED SHEET METAL LINK FUSES

Type of Link.....	B	C	D	E-F-H-I-L-M
C to C Distance.....	1 1/2"	2 1/4"	3 1/2"	See Catalog
Price Each.....	\$.11	\$.11	\$.16	\$.30

Electrical Contracting, January, 1931

THREADED CONDUIT FITTINGS

STANDARD TYPES. COVERS EXTRA

"Condulets" "Taplets" "Unilets" "Electrolets" "V. V."
"Adaptilets" Etc.

Form 7		3/8"	3/4"	1"	1 1/2"	1 3/4"
A		\$.33	\$.44	\$.60	\$.87	\$ 1.12
B		.40	.50	.70	1.00	1.30
C		.50	.57	.83	1.32	1.70
CO-COV		.70	.91	1.05	1.75	2.25
E		.40	.50	.70	1.12	1.46
F		For Special Form 6 Entrance Fittings See PL-13.				
F	Form 7	.70	1.12	1.75	3.08	4.46
LB-LF-LI-LR-LBB		.56	.63	.91	1.47	1.96
LB-LB-LB-LB		.56	.63	.91	1.47	1.96
LB-LB-LB-LW		.91	1.12	1.31	1.75	2.80
T All One Size		.67	.80	1.12	1.71	2.37
TA All One Size		.98	1.05	1.40	2.18	3.22
TB-TL-TR		.68	.81	1.12	1.71	2.38
U-U-B		.68	.75	1.10	1.76	2.35
X All One Size		.84	1.09	1.47	1.96	2.50
Gaskets		.14	.14	.21	.28	.28
Reducers		.21	.21	.28	.42	.56
Connectors		.40	.42	.49	1.54	1.96
Unions		1.05	1.19	1.40	4.90	6.30

	Form 7	2"	2½"	3"	3½"	4"
A		\$2.32	\$5.46	\$ 6.50	\$10.66	\$11.70
B		3.65	5.46	7.80	9.10	10.65
C		3.40	6.04	8.10	11.70	14.80
CO-COV		4.45	6.75	10.27	16.38	17.95
E		3.00	5.46	6.50	10.60	11.70
F		For Special Form 6 Entrance Fittings See PL-13.				
F	Form 7	7.00	10.66	13.26	23.53	32.60
LB-LF-LR-LR-LBB		3.50	6.50	8.45	13.65	15.60
LF-LB-LR-LRB		3.50	6.50	8.45	13.65	15.60
LB-LR-LB-LRW		3.58	6.50	8.52	14.30	16.90
T All One Size		5.53				
TB-TL-TR		3.58	6.50	9.75	14.30	16.90
U-UB		4.20	7.80	10.15	16.38	18.75
X All One Size		4.90	7.80	13.00	16.90	20.80
Gaskets		.35	.52	.52	.65	.65
Reducers		.70	1.30	1.76	2.60	3.58
Connectors		3.01	.....	.....	.....	.....
Unions		8.10	.....	.....	.....	.....

COVERS

For Above

[illegible]

RECEPTACLES & ROSETTES

For Above

Plug Receptacles	10 Amp.	2 Pole	250 Watt.	.....	\$ .56	\$.63	1 ⁰⁰
"	15 "	2 "	125 "	"	.....	.63	.70
"	20 "	2 "	250 "	"	.....	.77	.84
"	10 "	3 "	250 "	"	.....	.84	.....
"	15 "	3 "	125 "	"	.....	.....	.91
"	20 "	3 "	250 "	"	.....	.....	1.12
Lamp Receptacle	660 Watt	with Shade Holder	.....	.....	.42	.49	.56
Cord Rosette	.....	.....	.....	.....	.42	.49	.56

FS SERIES FOR FLUSH DEVICES
Shallow Type Without Covers. Any Make

No. Gangs	No. Pipe	Series	3/4"	1/2"	1"
Single Gang	One	FS-FSA	\$.91	\$1.08	\$1.19
"	Two	FSC-FSA-FSR- FSLA-FSS-FSAA			
"	Three	FSCA-FSCC- FSCST-FST	1.05	1.28	1.54
"	Four	FSX-FSCD	1.40	1.75	2.03
Two Gang	One	FS-FSA	1.68	2.10	2.38
"	Two	FSC-FSS	1.68	1.82	1.96
"	Three	FSD	1.82	1.96	2.17
2 Gang Tandem	One	FS	2.03	2.17	2.31
"	Two	FSC	2.31	2.45	2.59
"	Three	FS-FSA	2.45	2.59	2.73
Three Gang	One	FS-FSA	.....	2.52	2.73
"	Two	FSC	.....	2.68	2.87
"	Four	FSD	2.73	3.01	3.32
Four Gang	One	FS-FSA	.....	3.08	3.36
"	Two	FSC-FSSE	.....	3.29	3.50
"	Five	FSD	3.44	4.00	4.34

Electrical Contracting, January, 1931

COVERS FOR FS FITTINGS

[illegible]

COMBINATION COVERS FOR FS SERIES

2	Gang for One Switch and one Sgle. or Duplex Receptacle.....	\$.70
2	" " " " " Bull's Eye with Jewel.....	1.78
2	" " " " " One lift over Receptacle.....	1.05

NOTE: Although our prices on conduit fittings apply to all makes we use
Crouse-Hinds' numbers and lists for convenience.

G & H WITHOUT ADJUSTABLE BAR

Type Crouse Hinds or Similar				
	$\frac{3}{4}''$	$\frac{5}{8}''$	$1''$	
G.....	\$.66	.70	\$1.05	
GL.....	.63	.77	1.12	
GA-GT.....	.84	.98	1.33	
GTA-GX-GXA.....	1.05	1.19	1.68	
H.....	.42	.56	.91	
HA.....	.40	.63	.98	
HH.....	.56	.70	1.05	
HHC.....	.84	.98	1.33	
HLA.....	.63	.77	1.12	

Type Crouse Hinds or Similar			
	$\frac{3}{4}''$	$\frac{5}{8}''$	$1''$
G.....	\$.90	\$1.05	\$1.40
GL.....	1.05	1.19	1.61
GA-GLA-GT.....	1.26	1.40	1.82
GTA-GX-GXA.....	1.50	1.68	2.24
H.....	.84	.91	1.26
HA.....	.91	.98	1.40
HH.....	.98	1.05	1.40
HHC.....	1.26	1.40	1.82
HLA.....	1.05	1.19	1.61

G & H WITH ADJUSTABLE BAR

Type Crouse Hinds or Similar				5 Amp.		10 Amp.	
	$\frac{3}{4}$ "	$\frac{3}{4}$ "	1"		$\frac{3}{4}$ "	$\frac{3}{4}$ "	1"
G.....	\$.77	\$.91	\$1.26		\$.91	\$1.12	\$1.40
GL.....	.84	.98	1.33		.98	1.19	1.68
GLA-GT.....	1.05	1.19	1.84		1.19	1.19	1.68
GTA-GX.....	1.26	1.40	1.89		1.40	1.61	2.08
GXA.....	1.50	1.71	2.17		1.71	1.82	2.81
H.....	.63	.77	1.12		.77	.98	1.26
HA.....	.70	.84	1.19		.84	1.05	1.33
HH.....	.77	.91	1.26		.91	1.12	1.40
HHC.....	1.05	1.19	1.84		1.19	1.40	1.68
HXA.....	.84	.98	1.33		.98	1.19	1.50

Type Crouse Hinds or Similar				20 Amp.		
	$\frac{3}{4}$ "	$\frac{3}{4}$ "	1"		$\frac{3}{4}$ "	1"
G.....	\$1.26	\$1.33	\$1.68			
GL.....	1.33	1.50	1.96			
GLA-GT.....	1.54	2.08	2.53			
GTA-GX.....	1.75	1.96	2.53			
GXA.....	1.96	2.24	2.80			
H.....	1.12	1.19	1.54			
HA.....	1.19	1.26	1.68			
HH.....	1.26	1.33	1.68			
HHC.....	1.54	1.68	2.10			
HXA.....	1.33	1.60	1.96			

COVERS FOR G & H SERIES

Description	For G & H Fittings Without Adjustable Bar		For G & H Fittings With Adjustable Bar	
	5 & 10		5 & 10	
	Amp.	Amp.	Amp.	Amp.
Porcelain Cover with Wire Holes	\$.28	\$.35	\$.56	\$.71
Blank Steel Steel Cover . . . . .	.31	.38	.56	.71
Sheet Steel with 1/4" Cast Brass Nipple . . . . .	.35	.42	.49	.56
Sheet Steel with 1/2" Cast Brass Nipple . . . . .	.42	.49	.56	.63
Sheet Steel with 3/4" Cast Brass Nipple . . . . .	.50	.56	.63	.70
Sheet Steel with 1" Cast Brass Nipple . . . . .	.56	.63	.70	.76
Receptacle Covers No Shadeholder . . . . .	.70	.76		
Receptacle Covers With Shadeholder	1.12			

DEVICES FOR G & H SERIES

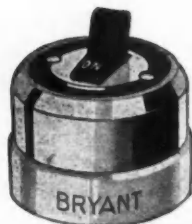
Lamp Receptacles one piece with or without Shadeholder Groove.....	\$.35
" " two " " " " " "	.70
" " " without " " " "	.63
Cord Rosette Porcelain.....	.56
" " Composition.....	.70

J & K SERIES WEATHERPROOF

	3/8"	1/2"	1"
JA-JB-JU.....	\$.84	\$1.05	\$1.80
LA.....	1.19	1.19	1.61
LL.....	.98	1.23	1.60
LT.....	1.33	1.50	1.61
LX.....	1.50	1.61	1.83
KA.....	.70	.91	1.33
KA-KB-KC-KD.....	.84	1.05	1.60



Five *Buying Points* of the **NEW LINE** of **BRYANT** **SURFACE TUMBLER SWITCHES**

**3911-B****3921**

For complete listing of Bryant Surface Tumbler Switches, see page 92, Bryant Catalog No. 30.

1. Handles are of brown Bakelite, with "On" and "Off" indications for Single and Double Pole Switches. ◀ ◀
2. Covers are furnished in Polished Nickel or of Brown Bakelite. ◀ ◀ ◀ ◀ ◀ ◀ ◀ ◀ ◀
3. Metal and Bakelite covers are *Interchangeable*. ◀ ◀
4. Improved type Spring Fasteners hold Covers securely, but permit instant removal. ◀ ◀ ◀ ◀ ◀ ◀ ◀
5. Pony switches can be furnished mounted on Cadmium plated Box Covers for either 3¼ in. or 4 in. Outlet Boxes.



NOTE: The Pony Switches are available either Single Pole or Three Point, and the larger switches, Single Pole, Double Pole, Three Point and Four Point.

E-131

BRYANT

SUPERIOR WIRING DEVICES

Manufactured by
THE BRYANT ELECTRIC COMPANY, BRIDGEPORT, CONN.

MANUFACTURERS OF "SUPERIOR WIRING DEVICES" SINCE 1888-MANUFACTURERS OF HEMCO PRODUCTS

BOSTON • **CHICAGO** • **NEW YORK** • **PHILADELPHIA** • **SAN FRANCISCO**

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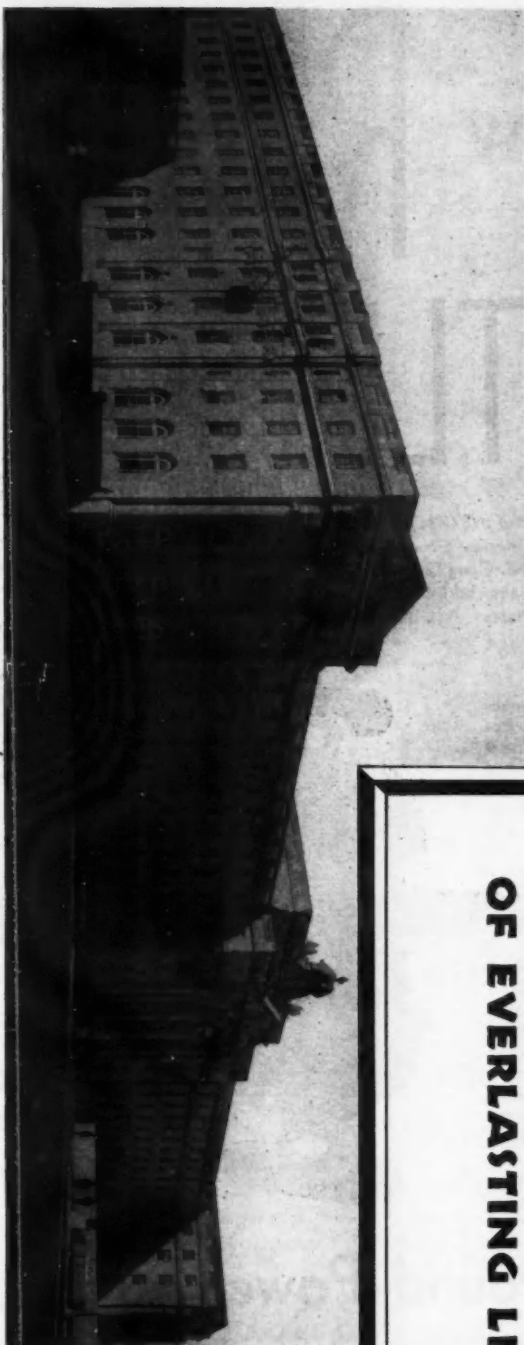
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CENTRAL CONDUIT WENT INTO THIS BUILDING OF EVERLASTING LIMESTONE



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Maginnis & Walsh
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Electrical Contractors
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Baltimore

This beautiful architectural structure is the modern expression of the oldest Seminary in the United States—St. Mary's at Baltimore, Maryland.

Where permanence with beauty was the keynote of its construction—where only the finest and most enduring materials were used, it is significant that Central Conduit was chosen to protect the electrical wiring for all time.

Central Conduit is nationally recognized for its quality and well-made excellence. It pays to specify it.

CENTRAL TUBE COMPANY, PITTSBURGH

ARROW RADIO OUTLET

No. 2145

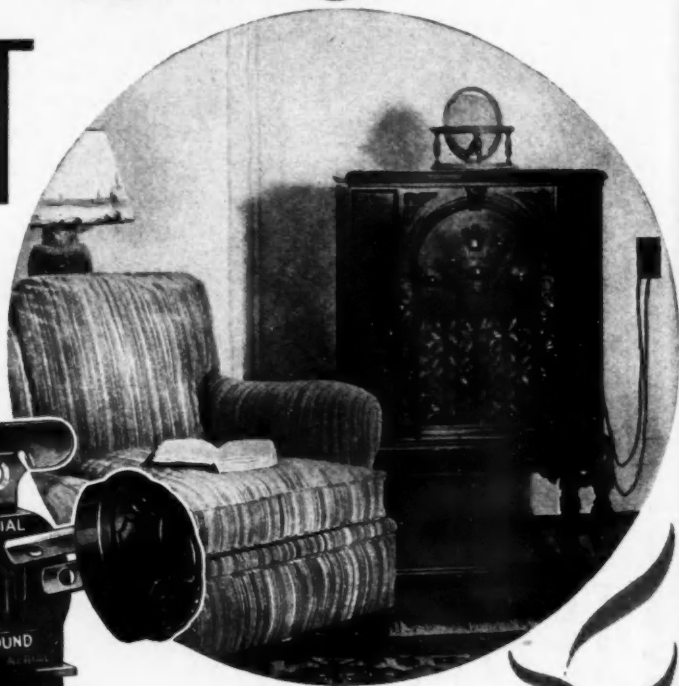
NEW HOOK-UP FOR RADIO INSTALLATIONS—modern, unique in idea. Aerial, Ground and Power connections from a ONE-Gang Outlet. Fits all standard-depth wall boxes; takes standard Bakelite Duplex Receptacle Plates. ALL Bakelite, face, body and back. " " " " "

Aerial, ground and power connections are plainly marked on Receptacle. To further insure correct connections, the aerial and ground plug has blades set at angle which prevents insertion in the power slots of Receptacle. In use it is positively fool-proof. " "

Standard plug cap furnished on radio fits the power slots only—and functions there. Firm, positive contacts replace the loose fit of ordinary radio-plug connections. Both the Aerial-Ground and Power Outlets have Finding Grooves for the plug prongs. A divider plate keeps Aerial-Ground and Power circuits separated in wall box. This arrangement meets the requirements of the National Electric Code.



with Plug
Complete
No. 2145



Aerial-Ground-Power from a 1-Gang Outlet

The new Radio Outlet serves equally well for old buildings or new work. As easily installed as any Convenience Outlet; gets rid of objectionable surface wires. Taking a standard wall box and standard plate, this Radio Outlet becomes a part of the newer-standard wiring job, matching the other wiring devices and completing the scheme of modern electrical convenience. Moisture-proof, safe, serviceable, highly workmanlike. Underwriters Laboratories Approved, of course. With Plaster Ears, standard. . .

ARROW ELECTRIC DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC CO.
HARTFORD, CONN.



The unmentioned but "understood" part in every specification

The ultimate desire in every job is complete service, which *must* depend on quality. In **FA** Panelboards you *know* that this "understood" part is *there* also. Years of progres-

sive development and leadership based on quality and service—back up every **FA** specification. This integrity is assured in *every* **FA** Panelboard by complete standardization.

The new Leader Type LNT P Panelboard has many features for you to consider. Let us send you Bulletin No. 50 — and also catalog No. 45 — if you do not now have them.

Frank Adam

ELECTRIC COMPANY

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Fittings, Conduit

DEVICES FOR J K SERIES

DEVICES FOR J & K SERIES		
Lamp Receptacle	S. H. Groove.	\$.63
	No S. H. Groove.	.58
Plug Receptacle	10 & 15 Amp.	.70
"	20 "	.91
"	10 " 3-wire.	.98
Cord Rosette.		.40
Blank Cast Cover.		.42

SERIES V VAPORPROOF TYPE

Crouse-Hinds or Similar

Prices include Globe & Guard

Form 75

	1/2"	3/4"	1"
V-VA & VDA as above	\$5.85	\$3.92	\$6.00
VC & VL	5.98	0.11	6.24
VT-VD & VE	6.17	0.30	6.54
VX	6.30	0.53	6.78
VF	6.37	0.50	
VD & VJ	6.70	0.87	7.00

	1"	Form 200	1"
V-VA & VDA as above.....	\$7.02	\$7.00	
VC & VL " " " " " " " "	7.15	7.28	7.38
VT-VD & VE " " " " " " " "	7.28	7.50	7.63
VX " " " " " " " "	7.41	7.67	7.87
VF " " " " " " " "	7.47	7.60	
VD & VI " " " " " " " "	7.67	7.80	7.93

ACCESSORIES & PARTS FOR V SERIES

	Price	Form
	75	200
Globes only, clear glass	\$1.12	\$1.12
" " opal	1.54	2.38
" " green	3.38	3.38
" " ruby	3.30	4.06
Guards Cast Aluminum	2.52	3.12
Half Shades	1.68	2.45
Receptacle with Gasket .....	.56	.56
Reflector Holders Cast Aluminum	1.00	.91
Adaptor, 12 holders	1.75	1.26

GS VAPORPROOF FIXTURES

GS VAPORPROOF FIXTURES
(Page 56, Crouse Hinds Cat. 2200 or Similar)

Pendant or Bracket Fixture with Recep. Globe and Guard Form	75....	\$7.93
	200....	8.84

FITTINGS, THREADLESS

STANDARD TYPES

"Kondur" Crouse-Hinds "Appleton" or Similar

Types	36"	36"	1"	1 1/2"
A. Without Covers	\$.46	\$.62	\$.94	\$1.20
B.	.53	.70	.95	1.41
BE.	.95	1.23	1.79	2.77
C.	.74	.94	1.53	2.77
CB.	1.04	1.22	2.22	3.86
E.	.74	.94	1.29	2.07
E.	.53	.67	.94	1.41
LB-LF-LL-LR.	.81	.98	1.40	2.11
SE.	.81	1.09	1.71	2.67
T-TL-TR.	1.04	1.34	1.85	2.81
TB.	1.47	1.82	2.38	3.67
U & UB.	1.91	1.54	2.54	3.67
X.	1.33	1.82	2.45	3.41
XB.	2.03	2.52	3.29	4.95
LBL-LBR-LU.	1.26	1.68	2.31	3.41

	1 1/2"	2"	2 1/2"	3"
A.	\$1.61	\$3.15	\$6.65	\$8.11
B.	1.96	3.85	6.65	8.11
BE.	3.64	6.30	11.70	13.33
C.	2.66	5.11	8.55	11.11
CB.	3.85	6.16	9.90	14.33
E.	2.66	5.11	8.55	11.11
E.	1.96	3.85	6.65	8.07
LB-LF-LL-LR.	2.94	5.18	8.80	11.55
SE.	3.99	7.00	11.85	14.85
T-TL-TR.	3.85	6.16	9.90	14.44
TB.	5.18	9.00	13.33	18.22
U & UB.	3.29	6.00	10.10	13.22
X.	4.48	8.33	12.35	19.11
XB.	6.65	11.85	17.77	24.44
LBL-LBR-LU.	4.48	8.33	12.35	19.11

SPECIAL FITTINGS

	1/2"	3/4"	1"	1 1/2"
H Couplings.....	\$.32	\$.48	\$.83	\$1.14
KO Box Connector.....	.20	.29	.67	1.31
NO.....	.24	.31	.56	.81
SCA Cable Connector.....	.13	.17	.24	.....
SLP Short Elbow.....	.99	.52	.63	1.01
KOL Box Connector.....	.43	.57	.98	1.61
KOR Reducer.....	.55	.63	.....	.....
H Couplings.....	1 1/2" \$1.54	2" \$3.21	2 1/2" \$4.00	3" \$6.31
KO Box Connector.....	.....	.....	.....	.....
NO.....	1.18	2.49	3.28	4.31
SCA Cable Connector.....	.....	.....	.....	.....
SLP Short Elbow.....	.....	2.56	.....	.....
KOL Box Connector.....	2.07	4.20	.....	.....
KOR Reducer.....	.....	.....	.....	.....

COVERS FOR ABOVE FITTINGS

	1/2"	3/4"	1"	1 1/2"
Blank Metal	\$.13	\$.16	\$.32	\$.40
Rubber Gasket . . . . .	.14	.14	.22	.24
Metal 1/2 Nip . . . . .	.28	.35	.49	.56
" 3/4 " . . . . .	.32	.40	.54	.60
" 1 " . . . . .	.35	.42	.56	.62
" 1 1/2 " . . . . .	.42	.49	.63	.69
Porcelain with Holes . . . . .	.14	.21	.35	.40
Metal Cord Grip . . . . .	.38	.35	.49	.56

Fittings, Threadless

COVERS FOR ABOVE FITTINGS—Continued

	1½"	2"	2½"	3"
Blank Metal.....	\$.63	\$.70	\$1.05	\$1.05
Rubber Gasket.....	.28	.50	.84	.84
Metal, ¼ Nip.....	.82			
" ¼ ".....	.86			
" ½ ".....	.88			
" ¾ ".....	.90			
Porcelain with Holes.....	.68	.84	1.12	1.12
Metal, Cold Grip.....				

DEVICES FOR ABOVE FITTINGS

			3/4"	1/2"	1"
Lamp Recept. without Shade Holder Groove PR...			\$.35	\$.42	\$.49
" " " with Shade Holder Groove PR5...			.42	.49	.56
Porcelain for Weatherproof Socket W.P.2.....			.28		
Polarity Plug Receptacle 10 Amp. P.....			.56	.63	.70
" " " Duplex P.D.....				.70	.78
			Sgle. Pole	Dble. Pole	3 Pole
Snap Switch 5 Amp. 125 Volt Non Indicating....			\$.70		\$1.26
" " 5 " 125 " Indicating.....			.77		
" " 10 " 125 " Non-Indicating.....			1.12	\$1.47	1.47
" " 10 " 125 " Indicating.....			1.26	1.68	

TYPE FS FOR FLUSH DEVICES

Any Make

Type	1 Gang			2 Gang		
	1/2"	3/4"	1"	1/2"	3/4"	1"
FSE-FSB.....	\$1.05	\$1.26	\$1.40	\$1.82	\$2.03	\$2.24
FSC-L & R.....	1.33	1.61	2.03	2.10	2.31	2.60
FST.....	1.75	2.31	2.73	.....	.....	.....
FSU.....	1.26	1.61	2.03	.....	.....	.....
FSD.....	1.75	2.31	2.73	2.38	2.73	3.05

Type	3 Gang	4 Gang	5 Gang
FSE-FSB	\$2.73	\$3.01	\$3.64
FSC-L & R	3.08	3.36	3.99
FST			
FSU			
FSD	\$3.22	3.57	3.85

Covers for Above

	One Gang	2 Gang
Blank Metal Plate.....	\$.37	\$.70
Receptacle Plate.....	.28	.38
Toggle or Push Button Switch Plate.....	.38	

TYPE "O" FOR SNAP SWITCHES, ETC.

Type	5 Amp.		10 Amp.		
	$\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{1}{2}''$	$\frac{3}{4}''$	1"
OA.	\$.63	\$.64	\$.77	\$1.05	\$1.34
OC.	.77	1.05	.91	1.26	1.61
OCB.	1.19	1.54	1.76	2.34	2.92
OE.	.56	.77	.70	.98	1.27
OEB.	.91	1.12	1.05	1.33	1.71
OL.	.91	1.12	1.05	1.33	1.71
OLB.	1.19	1.54	1.33	1.75	2.24
OT.	1.19	1.54	1.33	1.75	2.24
OTB.	1.54	1.96	1.68	2.10	2.68
OU.	.77	1.05	.91	1.26	1.61
OUE.	1.19	1.54	1.33	1.75	2.24
OX.	1.54	1.96	2.10	2.75	3.33
OXB.	1.99	2.31	2.03	2.62	3.33

Type	2 Amp.		
	$\frac{1}{2}''$	$\frac{3}{4}''$	1"
OA.	\$1.05	\$1.19	\$1.61
OC.	1.19	1.40	1.96
OCB.	1.61	1.96	2.53
OE.	.98	1.12	1.47
OEB.	1.33	1.54	2.10
OL.	1.33	1.54	2.10
OLB.	1.61	1.96	2.53
OT.	1.61	1.96	2.53
OTB.	1.96	2.38	3.22
OU.	1.47	1.61	2.10
OUE.	1.61	1.96	2.53
OX.	1.96	2.38	3.22
OXB.	2.31	2.87	3.71

COVERS FOR TYPE "O" FITTINGS

	5	10	20
	Amp.	Amp.	Amp.
Blank Metal Cover, Round	\$.21	\$.28	\$.35
Porcelain Cover, Round with holes . . . . .	.21	.35	.42
Metal Cover with $\frac{1}{4}$ or $\frac{3}{8}$ Cord Grip . . . . .	.35	.42	.49
Blank Metal Cover with $\frac{1}{4}$ male or female nipple . . . . .	.42	.49	.56
" "	.49	.56	.63
" "	.56	.63	.70
Rubber Gaskets . . . . .	.42	.49	.56
Lamp Receptacles Porcelain Edison Base . . . . .	.42	.49	.56
" " Composition T Slot . . . . .	.84		

REDUCING BUSHINGS

REDUCING DESIRES								
Large End	1 1/2"	1"	1 1/4"	1 1/2"	2"	2 1/4"	3"	
Small End	1 1/2"	\$.41	\$.53	\$.71	\$.80	\$1.05	\$1.40	\$1.50
" "	1 1/4"		.60	.76	.90	1.19	1.50	1.60
" "	1 1/2"			.81	.94	1.29	1.60	1.80
" "	1 1/4"				1.13	1.48	1.90	2.40
" "	1 1/2"					1.61	1.90	2.40
" "	2"						2.27	2.90
" "	2 1/4"							3.20

**FITTINGS, SPRAGULETS, WIRELETS
OR T & B**

BRANCH TYPE			
Series 43			
Description	G.E., Steel City or T & B Numbers	Price Each	
Branch Body Rectangular for $\frac{1}{4}$ & $\frac{3}{4}$ " Conduit...	SP-4861	\$1.25	
Cover Metal Flat Closed...	SP-48C1	10	
" " " with $\frac{1}{4}$ " Knockout	SP-48C6	10	
" " " Pendant Type with $\frac{1}{4}$ " Bushing	SP-48C5	12	
" " " Pendant Type with $\frac{1}{4}$ " Bushing	SP-48C11	12	
" " " with $\frac{1}{4}$ " Male or Female Nipple	SP-48C22 & 22	30	
" " " with $\frac{1}{4}$ " Male or Female Nipple	SP-48C23 & 23	30	
Cover Porcelain with one or two wire Holes	SP-48C75	75	
" " " three or four wire Holes	SP-48C77 & 78	14	

SHALLOW TYPE

Series 14

Description	G.E., Steel City or T & B Numbers	Price Each
Body Octagonal Shape for $\frac{1}{8}$ " or $\frac{1}{4}$ " Conduit.....	SP-14241	\$.35
Cover Metal Flat Closed.....	SP-14C1	.10
" Raised with $\frac{1}{8}$ " Knockout	SP-14C7	.10
Cover Metal Flat Pendant with $\frac{1}{4}$ " Bushing.....	SP-14C8	.12
" " "	SP-14C11	.16
" " " with $\frac{1}{4}$ or $\frac{3}{8}$ Male Nip.....	SP-14C22-24	.30
" " " For all surface Mounted Devices	SP-14C28	.15
" " " Raised for Sign Roseettes.....	SP-14C30	34-35-36
" " " Flat for all Flashed Devices.....	SP-14C39	.15
" Porcelain with one or two holes.....	SP-14C75 & 76	.15
" " Three or Four holes.....	SP-14C77 & 78	.15

DEEP TYPE
Series 34

Description	G. E., Steel City or T & B Numbers	Price Each
Body Deep Octagonal Shape $\frac{1}{4}$ " & $\frac{3}{8}$ "	SP-34461	\$.45
Cover Metal Blank Flat	SP-34481	.14
Cover Metal Flat Push Button Switch	SP-34482 & 3	.14
" " Single Receptacle	SP-34485	.14
" " Standard Duplex Receptacle	SP-34486	.14
" " For GE 80 Amp. Polarized Plug Recep.	SP-34418	.14
" " GE Tumbler Switch	SP-34414	.15
" " Hubbell and H&H Tumbler Switches	SP-34415	.15

COUPLINGS

SP-1410 Complete Coupling for 1/2" Conduit.....	Price \$1.10
SP-1420 " " " 3/4" ".....	.25

FITTINGS, ENTRANCE OR SERVICE

"ADAPTI"

Est. Ells with Cov. Ser. 1100.....	1 1/2	3 1/2	1"	1 1/2
" Fitt. with Cov. Ser. 2700	\$.45	\$.60	\$.60	\$1.05
Angle Ent. Fitt. with Cover Ser. 2700 .....	.45	.55	.65	1.10
Signal Ent. Caps No. 2810-2811 .....	.50	.55	.65	1.20
	1 1/2	3 1/2	2 1/2	5"
Est. Ells with Cov. Ser. 1100.....	\$1.55	\$3.00		
" Fitt. with Cov. Ser. 2700	1.85	3.00	\$6.25	\$7.65
Angle Ent. Fitt. with Cov. Ser. 2700	1.85	3.00	6.00	7.25
Signal Ent. Caps No. 2810-2811	1.85	3.00		

"APPLETON"

FEB Elbow with Cov. 1700 & 1900.....	1 1/2"	1 1/2"	1"	1 1/4"
FB Elbow with Cov. 1713 to 16.....	\$.50	\$.60	\$.70	\$1.70
FC End Fitt. with Cov. 1723-33-45.....	.25	.50	.60	.....
AY Angle Fitt. 1950 to 54.....	.20	.25	.30	.....
LAY End Fitt. with Cov. 1790 to 94.....	.50	.55	.70	1.15
	.45	.60	.80	1.20
	1 1/2"	2"	2 1/2"	3"
FEB Elbow with Cov. 1700 & 1900.....	\$1.90	\$3.25	\$7.50	\$9.00
FB Elbow with Cov. 1713 to 16.....	.....	.....	.....	.....
FC End Fitt. with Cov. 1723-33-45.....	.....	.....	.....	.....
AY Angle Fitt. 1950 to 54.....	.....	.....	.....	.....
LAY End Fitt. with Cov. 1790 to 94.....	.....	.....	.....	.....
	1.75	.....	.....	.....

"BEND HICKS"

Bend Hicks Galvanized.....	1 1/2"	3/4"	1"	1 1/4"
	\$0.50	\$0.60	\$0.65	\$1.75
Bend Hicks Galvanized.....	1 1/4"	2"	2 1/4"	3"
	\$2.15	\$4.10	\$6.00	\$8.25

"CAP-SWIVEL-LET"

"A" Inside Work #1010 to 1064.....	\$4.20	\$4.25	1"	1 1/4"	1 1/2"	2"
"BW" Threaded Fitt. 4112-4134.....	.45	.50	.75			
"BW" Threaded Fitt. 2112-2124.....	.35	.45				
"FW" Outside Work 1412-1464.....	.40	.50	.65	1.05	1.80	3.00
"LB" Service Entrance 3110-3130.....		.50	.55	.65		
Type "AM" for Nipple 314" Long.....	.20	.20	For Nipple 114" Long.....	.20	.25	.25
Type "BX" AM from 1600 to 1612.....	.20	.20	For 1614-1624.....			.30
From 1632-1624.....	.25					

"CONDULETS"—Form 6

F Type Ent. Fitt. with Porc. Cov.....	1½"	3⁄4"	1"	1½"
LB Type Ent. Fitt. with Metal Cov....	\$4.40	\$4.45	\$6.00	\$6.90
	.45	.50	.60	1.10
F Type Ent. Fitt. with Porc. Cov.....	1½"	2"	2½"	3"
LB Type Ent. Fitt. with Metal Cov....	\$1.60	\$2.85	.....	.....
	1.40	2.45	.....	.....

"ELECTROLETS"

FE Angle Fitt. with Cov. 713-53.....	1 1/2"	1 1/2"	1"	1 1/4"
KA End Fitt. with Cov. 1013 to 43.....	\$.45	\$.55	\$.70	\$1.10
KB Elbow Fitt. with Cov. 1113 to 33.....	.20	.20	.25	.35
SLB Elbow Fitt. with Cov. 1 to 4.....	.35	.50	.60	.....
Y Capped Elbow Y1 to 5.....	.50	.55	.65	1.75
FE Angle Fitt. with Cov. 713-53.....	1 1/2"	2"	2 1/2"	3"
KA End Fitt. with Cov. 1013 to 43.....	\$1.85	\$3.00	\$6.00	\$30.00
KB Elbow Fitt. with Cov. 1113 to 33.....	.....	.....	.....	.....
SLB Elbow Fitt. with Cov. 1 to 4.....	.....	.....	.....	.....
Y Capped Elbow Y1 to 5.....	2.20	.....	.....	.....

"GENERAL ELECTRIC"

With Covers		$\frac{1}{2}^*$	$\frac{1}{2}^*$	1^*	$1\frac{1}{2}^*$
Ent. Caps Series	1525 to 1534	\$.45	\$.55	\$.70	\$.95
Capped Elbow Series	1470 to 1472	.50	.60	.90	
Capped Elbow Series	1480 to 1484	.50	.55	.70	1.85
Insulets Series	1600 to 1612				
Insulets Angle Series	1640 to 1642	.30	.40	.50	
Entrance Ells	1490 to 1495	.40	.45	.55	1.00
With Covers		$1\frac{1}{2}^*$	2^*		
Ent. Caps Series	1525 to 1532	\$1.00	\$3.75	\$8.00	\$10.00
Capped Elbow Series	1470 to 1472				
Capped Elbow Series	1480 to 1484	2.25			
Insulets Series	1600 to 1612				
Insulets Angle Series	1640 to 1642				
Entrance Ells	1490 to 1495	1.55	3.00	8.35	10.50

GEE-VEE

F Service Cap Series 6000.....	1½"	\$.45	3"	\$.70	1¼"	\$1.00
B " " " 16000.....		.45	.50	.70		1.75
F Pipe " " 1000-1310.....		.40	.50	.75		.85
B " " 2000 & 2100.....		.45	.65	.75		.75
FB Universal " 3000.....	1.00	1.25	1.65			2.75
Weathercap " 40122.....	.30	.80	1.10			.50
Service Elbow " 19000.....		.15	.20	.25		1.05
Endo Terminal Series 90000.....	.25	.35	.50			
Endo with Male Thread Series 70000.....						
Endo for Armored Cable						
Series 30000, Nos. 14 and 12 wire, \$.15; No. 10 wire, \$.30; No. 6 wire, \$.45						
SEG Service Elbow Cable .400-¾"x½"x½", \$.70; 1"x½"x½", \$.15; 1½"x½"x½", \$.75						
F Service Cap Series 6000.....	1½"	\$1.90	3"	\$3.35	2½"	\$7.00
B " " " 16000.....		1.90	3.25	7.00		\$9.25
F Pipe " " 1000-1310.....		1.20	1.75	3.00		4.15
B " " 2000 & 2100.....		1.05				
FB Universal " 3000.....	3.75	5.40	9.50			12.70
Weathercap " 40122.....						
Service Elbow " 19000.....	2.75	3.60				
Endo Terminal " 90000.....	1.40	2.40	4.55			7.40

"TAPLETS"

	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 3/4"	2"	2 1/2"	3"
AR End Fitt. with Bushing.....	\$.40	\$.55	\$.70	\$.90	\$ 1.01	\$ 1.17	\$ 1.34	\$ 1.50	\$ 1.67	\$ 1.80
BF Angle Fitt. with Covers.....	.35	.65	.65	1.20	.....	.....	.....	.....	.....	.....
FA End Fitt. with Covers.....	.15	.20	.....	.....	.....	.....	.....	.....	.....	.....
FB End Fitt. with Covers.....	.30	.45	.....	.....	.....	.....	.....	.....	.....	.....
FF Service Fitt. with Covers.....	.40	.45	.65	1.00	1.70	2.95	6.25	7.65	.....	.....
FS Service Fitt. with Covers.....	.85	1.05	1.50	1.90	3.05	4.90	11.50	12.65	.....	.....
SE Service Elbow with Covers.....	.95	1.10	1.25	1.90	2.50	4.20	8.45	9.80	.....	.....

T & B

Ent. Cap 1525-32 with Cover.....	1½"	3½"	1½"	1½"
Capped Elbow 1470-84 with Cover.....	\$.40	\$.50	\$.65	\$ 1.00
Insulators 1610-11-12 with Cover.....	.50	.60	.70	1.95
Insulators 1610-11-12 with Cover.....	.15	.20	.25	
Angle Insulators 1640-1-2 with Cover.....	.30			
Cable Insulators 2000 with Cover.....	.15			
Ent. Cap 1525-32 with Cover.....	1½"	3"	2½"	3"
Capped Elbow 1470-84 with Cover.....	\$ 1.70	\$ 2.95	\$ 7.55	\$ 9.25
Insulators 1610-11-12 with Cover.....	2.30			
Angle Insulators 1640-1-2 with Cover.....				
Cable Insulators 2000 with Cover.....				

"V. V."

	36"	48"	1' 18"	1' 36"	2' 36"	3'
Type 2 Term. Fitt. with Cov.	\$60	\$80.81	05.81	05.82	15.83	85
Type 6 Term. Fitt. with Bush.	40	55	70	90	130	170
Type 9 Term. Fitt. with Cov.	70	105	140	280	420	760
FAB with Porc. Cover	25	40	45	85	115	235
FC Pipe End Porc. Cover	15	20	25			
FCBX with Cover	15	55	65	115	135	245
FL with Cast Cover	50	65	85	175	215	410
Y Bend Hick	50	60	65	175	215	410

FITTINGS, "ADAPTI"

ROUND "ADAPTI" BOXES

Series Number	Style	1 1/2"	1 3/4"	2"
No. 2900 to 2908 . . .	1 Back Outlet	\$.40	\$.46	\$.60
No. 3100 to 3105 . . .	" Side "	.40	.46	.60
No. 3100T & 3101T	" " "			1.80
Threadless	" " "	.48	.55	1.15
No. 3170 to 3175 . . .	" " "	.46	.53	1.85
No. 3200 to 3205 . . .	2 " "	.48	.55	2.11
No. 3200T & 3201T	" " "			2.75
Threadless	" " "	.60	.67	
No. 3270 to 3275 . . .	" " "	.60	.67	2.25
No. 32170 to 32175	" " "	.53	.60	2.30
No. 3300 to 3305 . . .	3 " "	.64	.75	2.65
No. 3300T to 3305T	" " "			3.00
Threadless	" " "	.80	.92	
No. 33170 to 33175	" " "	.70	.82	2.70
No. 3400 to 3405 . . .	4 " "	.80	1.00	2.85
No. 3500 to 3505 . . .	2 " "	.60	.70	2.25
No. 3800 to 3805 . . .	3 " "	.53	.60	2.25
No. 3900 to 4105 . . .	3 " "	.80	.93	2.85
No. 4800 to 5005 . . .	4 " "	.93	1.05	3.50

PARTS For Above Boxes

Series No.	Description	1/2"	3/4"	1"
500-501-502	Base Only	.27	.27	.54
500X-501X	Extension Ring	.27	.27	.40
501A	Base Concealed to Expd.	.66	.66	.66
0500	" with Tapped Boss	.33	.33	.33
510 to 512	Base	.40	.40	.80
520 to 522	"	.27	.27	.52
30 to 35	Metal Side Plates	.14	.14	.20
40 to 42	Insulated Side Plates	.16	.16	.33
50 to 54	Armd. Flex. Side Plates	.33	.40	.53
60 to 65	Angle Outlet	.16	.22	.42
70 to 75	Elbow Outlet	.22	.29	.50
90 to 93	Connecting Outlet	.26	.33	.33
100 & 101	Straight for No. 500 Base	.16	.22	.22
110 to 113	" " No. 501 "	.26	.33	.42
120 to 125	" " No. 502 "	.46	.53	.66
130 to 135	" " No. 503 "	1.05	1.32	1.60
140 to 145	" " No. 504 "	2.65	3.05	3.45
300 & 301	Threadless Outlet	.20	.25	.25
310 & 311	"	.35	.40	.40
Series No.	Description	1 1/4"	1 1/2"	2"
500-501-502	Base Only	\$.54	\$ 1.08	\$ 1.08
500X-501X	Extension Ring	.40	.40	.40
501A	Base Concealed to Expd.	.66	.66	.66
0500	" with Tapped Boss	.33	.33	.33
510 to 512	Base	.80	1.60	1.60
520 to 522	"	.52	1.08	1.08
30 to 35	Metal Side Plates	.20	.38	.38
40 to 42	Insulated Side Plates	.33	.66	.66
50 to 54	Armd. Flex. Side Plates	.66	.66	.66
60 to 65	Angle Outlet	.48	.92	1.05
70 to 75	Elbow Outlet	.55	1.00	1.12
90 to 93	Connecting Outlet	.40	.40	.46
100 & 101	Straight for No. 500 Base	.16	.22	.22
110 to 113	" " No. 501 "	.26	.33	.42
120 to 125	" " No. 502 "	.46	.53	.66
130 to 135	" " No. 503 "	1.85	2.10	2.40
140 to 145	" " No. 504 "	3.85	4.25	4.65
300 & 301	Threadless Outlet	.20	.25	.25
310 & 311	"	.35	.40	.40

COVERS For Round Adapti Boxes

Numbers	Description	Price
1	Porcelain One Hole Cover	\$.18
2	Metal For Devices	.30
3	Porcelain One Hole Cover	.30
4 & 6	Porcelain with 1/4" Male or Female Nipple	.22
7 & 8	" " " " " "	.37
9 & 10	Malleable with 1/4" Male or Female Nipple	.30
11 & 12	" " " " " "	.37

NOTE: For "Adapti" Entrance Fittings See Page PL-13.

GROUNDING FITTINGS & DEVICES
"GROUNDULET", ETC.Crouse Hinds—Appleton & Similar
Type GCA

Fitting No.	Description	Price
GCA-12	For 1/2" Conduit Without Soldering Lug	\$.70
" -172	" " " " " " with	.75

Type GCD

With Angle Adjustment	1/2" One Strap	3/4" Two Straps	1" Three Straps
GCD-12 Fitting without Lug	\$.80		
GCD-172-22-32 with	.85	\$1.55	\$2.50

Type GCE

With Threaded Plug Terminal	1/2" Conduit & 1/2" Water Pipe without Lug	Price
GCE-142 For 1/2" Conduit & 1/2" Water Pipe without Lug		\$.80
GCE-242 " " " " " " with Lug		.90
GCE-342 " " " " " " with Lug		1.05

CONDUIT END TERMINAL Without Bolt or
Soldering Lugs

GCE1	For 1/2" Conduit	Price
GCE2	" " " "	.55
GCE3	" " " "	.70

Type GC

For Open Ground Wire

GC 91	Cast Brass with No. 4 Lug and One Strap—1/2" to 1" Water Pipe	Price
GC-92	Cast Brass with No. 4 Lug & One Strap 1/2" to 2" Water Pipe	.75
GC-922	" " " " " " " " 00 Lug & Two Straps " 2" "	1.45

WATER METER SHUNTS

GC191	Water Meter Shunt For 1/2" to 1" Water Pipe	Price
GC192	" " " " " " 1/2" to 2" "	\$1.75
		1.80

GC BRASS BUSHINGS For Groundulet Fittings

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Without Screw or Lug	\$.10	\$.13	\$.20	\$.24	\$.31	\$.46	\$.84	\$1.10
With Screw & Lug	.20	.24	.31	.32	.40	.61	1.00	1.25

G. E. & T. & B.
GROUND FITTINGS

G. E.	T. & B.	Description	Price
SP-800-05	3670-80	1/2" Body Saws 1/2" to 2"	\$0.90
SP-810-15	3671-81	1/2" " " " " " "	1.60
SP-820-25	3672-82	1" " " " " " " "	2.50

GROUNDING WEDGES

SP-900 to	3650 to	1/2" 3/4" 1" 1 1/4" 1 1/2" 2" 2 1/2" 3" 3 1/2" 4"	Price
911	3659	15c 20c 24c 26c 30c 45c 90c \$1.10 \$2.00 \$2.25	

GROUNDING JUMPERS

SP-600	8" Grounding Jumper	Price
SP-601	12" " "	\$0.45
		.55

FITTINGS OR BOX CONNECTORS, ARMORED CABLE

For BX or Armored Cable	Description	Size of K. O.	Price Each
Standard Squeeze Connector	1/2" - 3/4"	1 1/2"	\$.06
" Set Screw Connector	3/4" - 1"	1 1/2"	.06
" Slip In Connector	1" - 1 1/4"	1 1/2"	.06
" Duplex Connector	1 1/4" - 1 1/2"	1 1/2"	.18

STRAIGHT

BOX

CONNECTORS

Squeeze
or
Tangent
Type90 DEGREE
ANGLE BOX
CONNECTORSqueeze
or
Tangent
Type45 DEGREE
ANGLE BOX
CONNECTORSqueeze
or
Tangent
TypePANEL BOX
ADAPTOR
FOR CONVERTING
ANY CONNECTOR
INTO A
PANEL
CONNECTORSqueeze
or
Tangent
TypeCOUPLINGS
FOR
FLEXIBLE
STEEL
CONDUITFor 1/2" Conduit
" 3/4" " "
" 1" " "
" 1 1/4" " "
" 1 1/2" " "COUPLINGS FOR
RIGID
TO
FLEXIBLE
CONDUITFor 1/2" Conduit
" 3/4" " "
" 1" " "
" 1 1/4" " "
" 1 1/2" " "

Bushings or Ferrules—Brass

FITTINGS FOR "OVALFLEX" ARMORED CABLE

Number	Description	Price
2150-57-60-61	Straps—Fasteners & Bushings	\$.02
2159	Toggle with Wire Loop	.03
2176-2180-2184	Set Screw Connector	.15
2179-2181	Special Box Connector	.10
2155-2156	90 Degree Box Connector	.21
412-413	Connector for Ovalflex to Metal Molding	.25
9080-S	Squeeze Connector	.10

COMMERCIAL GLASSWARE

Standard

Fitters NOT INCLUDED	Depth or Length	Plain White Only
Diameter or Width		Size
6" Diameter	5 1/4" Inches to 6" Inches	Fitter 3 1/2" Price \$1.00
8" Diameter	5 1/4" " " 6 1/4" " "	4" 1.25
9" " "	5 1/4" " " 7 1/4" " "	4" 1.35
10" " "	6" " " 8 1/4" " "	4" 1.75
12" " "	6 1/2" " " 10 1/4" " "	4" or 6" 3.25
14" " "	7 1/2" " " 11 1/4" " "	6" 4.50
16" " "	8 1/2" " " 11 1/2" " "	6" 5.25
18" " "	9" " " 12" " "	6" 8.25
20" " "	10" " " 10 1/2" " "	8" 15.00

Modernistic Glassware

Fitters NOT INCLUDED	Depth or Length	Plain White Only
Diameter		Size
6" Diameter	6 1/4" Inches	4" \$1.40
8" " "	7 1/4" " "	4" 1.75
10" " "	8" " "	4" 2.50
12" " "	8 1/2" & 9" " "	6" 3.75
14" " "	9 1/2" & 11" " "	6" 5.25
16" " "	10 and 12 1/4" " "	6" 6.75

Ball Globes

6" Diameter	6 Inches Deep	Opal or C. R. I.
7" " "	7" " "	\$0.60
8" " "	8" " "	3 1/2" & 4" 1.20
10" " "	10" " "	4" - 5" - 6" 2.20
12" " "	12" " "	5" - 6" - 7" - 8" 3.50
14" " "	14" " "	6" - 7" - 8" 5.25
16" " "	16" " "	6" - 7" - 8" - 9" 7.50

Miscellaneous Glassware

Half Shades	4 1/2" Diam. 6" Deep	2 1/2" Fitter	Price
Mission Bell Shades	4 1/2" " "	2 1/2" " "	\$0.75
" " " "	6" " "	2 1/2" " "	.50
" " " "	7" " "	2 1/2" " "	.60
" " " "	8" " "	2 1/2" " "	.80
			1.25

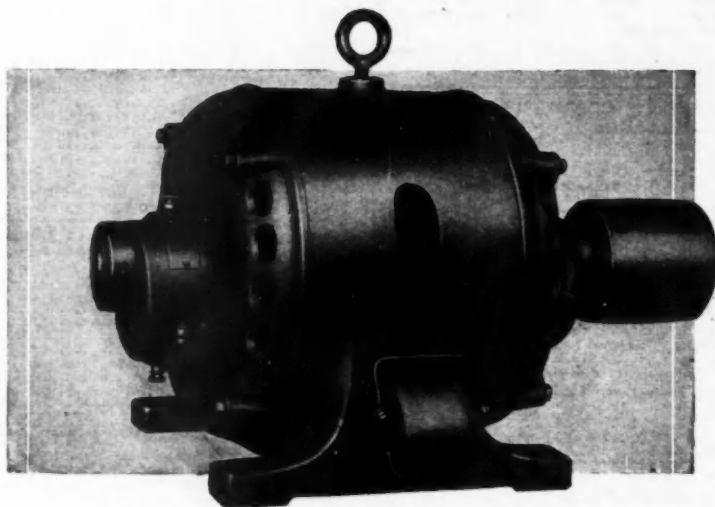
LAMP GUARDS

Loxon

1 Key with each dozen Guards—Extra Keys 10c each	Fits Socket	McGill Loxon Nos.	Price Each
15-25-40 Watt	Brass or W. P.	1420-1420A-1420B	\$0.60
50-60 Watt	Brass or W. P.	1425-1427A-1427B	.60
100 Watt	Brass or W. P.	1426-1428A-1428B	.60
150 Watt	Brass	2443	.80
200 Watt	Brass or W. P.	2444-2446A-2446B	.85
200 Old Style	Brass	2447	.95
200 Old Style	Weatherproof	2447A-2447B	1.00

THEY KEEP A-RUNNING

10 Horse Power
Century Type SCN
Squirrel Cage In-
duction 3 and 2
Phase 60 Cycle
Motor—Across-
the-line-Start.



SIMPLICITY OF STARTING

No current-limiting starting equipment is required on Century Type SCN Squirrel Cage Motors in 30 horse power and smaller sizes, because their starting current is within NELA recommendations . . . Any approved switch or starter may be used. As a result, they take full advantage of the line current—no current is dissipated in starting equipment—installation is simplified and maintenance costs are low.

Century Squirrel Cage motors are built in all standard sizes from $\frac{1}{4}$ to 250 horse power.



Century 250 Horse Power 60
Cycle 440 Volt 1800 R.P.M.
3-Phase Squirrel Cage In-
duction Motor.

CENTURY ELECTRIC COMPANY
1806 PINE ST. • ST. LOUIS, MO.

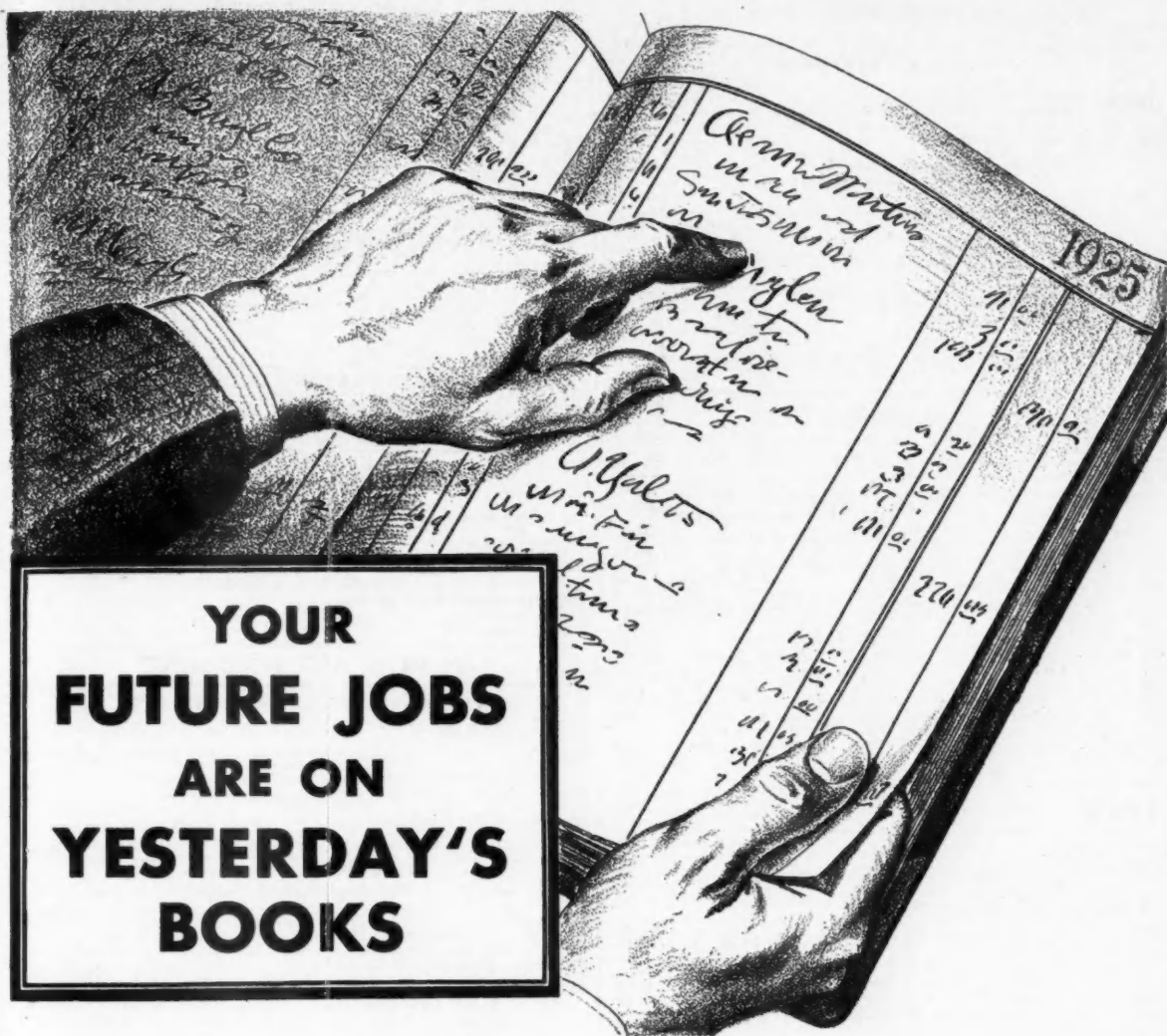
40 U. S. and Canadian Stock Points and More Than 75 Outside Thereof

SINGLE PHASE,
THREE PHASE,
AND DIRECT
CURRENT MOTORS

Century
MOTORS

MOTOR GENERA-
TOR SETS, ROTARY
CONVERTORS, FANS
AND VENTILATORS

FOR MORE THAN 27 YEARS AT ST. LOUIS



YOUR FUTURE JOBS ARE ON YESTERDAY'S BOOKS

Fifteen of the sixteen million buildings within reach of central station lines are already wired. New buildings alone will keep only a small part of the wiring industry busy.

It is in the rewiring of the millions of inadequately wired buildings that the industry must find its future growth. Your share of this work can be readily found. Check over your books—list the jobs you've done in recent years. . . You will find many which—adequately wired originally—are now in need of recircuit-

ing and additional outlets to modernize them. Use RomeX! Light to carry—clean to handle—works quickly in tight, close "fishing." Just naturally belongs in the rewiring of the old insulated job where grounding a metal sheath is difficult. Over a quarter of a billion feet of Non-Metallic Sheathed Cable installed in hundreds of localities and countless buildings these last seven years—are mute testimony of its dependable safety.

A sample and data to help you to get RomeX business, sent on request.

ROMEX
NON-METALLIC
SHEATHED CABLE

GENERAL CABLE CORPORATION

EXECUTIVE OFFICES: 420 LEXINGTON AVENUE, NEW YORK • OFFICES IN PRINCIPAL CITIES



PL-18 Molding

Plugs, Appliance

OVALDUCT

3 Wire.....Per Foot \$.17

OVALDUCT FITTINGS

No.	Description	Price Each
24-CQ	Extension box cover for 4" outlet boxes.....	\$.45
401	Box Connector with 1/2" Bondnut.....	.25
2135	Squeeze Type Coupling 1 1/4" long.....	.15
2134	90 Degree Internal Elbow.....	.35
2135	45 " Flat ".....	.25
2136	One piece 90 degree elbow.....	.50
2150	90 " Box Connector.....	.30
2150	Wire Toggle Fastener.....	.03
2161	Strap Fastener.....	.02
2181	Connector Ovalduct to Oval Knockout.....	.10
2662	Outlet Box 4 x 1/2".....	.20
2663	Extension Ring for Boxes.....	.20
2665	Outlet Box 4 x 1/2" with Fixture Stud.....	.28
2862	" " 3 1/4 x 1/2".....	.30
2865	" " 3 1/4 x 1/2" with Fixture Stud.....	.26
4170-S1	Sectional Switch Box 4 x 1 1/2 x 1.....	.35
4172-S1	Spacer for above box.....	.30

MOLDING, WIREMOLD

MOLDING

No. 500 3-Wire,	price per ft.	\$.10
" 700 4-Wire,	" "	.12
" 1000 Master Size,	" "	.23

FITTINGS FOR No. 500

Number	Description	Price
502	Bushing.....	\$0.04
504	Supporting Strap.....	.04
506	Connecting Cover.....	.22
511-12	45 & 90 Deg. Elbows.....	.22
515	Tee Plain.....	.38
516	Cross Plain.....	.38
517	Internal Elbow.....	.24
518	External ".....	.22
519	Corner Box.....	.38
521	1 Piece Rosette.....	.36
523	1/2" Fixture Rosette.....	.75
524	3/4" ".....	.70
525	Receptacle Base.....	.80
526	Keyless Receptacle.....	.95
527	Attachment Plug.....	1.00
532-23	2 1/2 & 3" Outlet Plug.....	.45
588	Operwork Coupling.....	.36
599	Moulding Connector.....	.08

FITTINGS FOR No. 700

Number	Description	Price
701	Coupling.....	\$0.04
702	Bushing.....	.04
703	Clip.....	.06
704	1 & 2 Hole Strap.....	.06
706	Connection Cover.....	.04
707	Multiple Strap.....	.10
708	Fixture Hook.....	.22
709	Ground Clamp.....	.12
711-12	Elbows 45 & 90 Deg.....	.22
715	Tee.....	.38
717	Internal Elbow.....	.25
717A	Elbow Pull Box.....	.50
718	External Elbow.....	.22
719	Corner Box.....	.45
720	Narrow Fitting.....	.55
720A	Show Case Outlet.....	.45
721	1 Piece Rosette.....	.35
724	Comb.....	.70
725	Receptacle Base.....	.80
726	Keyless Receptacle.....	.95
727	Plug Receptacle.....	1.00
728	Utility Box.....	.40
729	" " Cond. Type.....	.40
730	Contact Block.....	.26
731	Blank Cover.....	.15
732-3	2 1/2 & 3" Outlet Box.....	.45
734	Closed Extension ".....	.65
735	Distribution Box.....	.75
736	Blank Cover.....	.16
737	4 1/2" Extension Box.....	.65
738	4 1/2" Fixture Box.....	.65
738D	Duple Thru Hook Conn.....	1.50
738E	Stamped Hook.....	.65
	Canopy.....	.65

FITTINGS FOR No. 700

Number	Description	Price
5739	6 3/4" Fixture Box.....	\$0.95
5739A	6 3/4" Extension.....	.95
5744	Single Deep Box.....	.85
5744-2	2 Gang.....	1.20
5745	Combination.....	.70
5747	Single Shallow Box.....	.75
5747-2	2 Gang.....	1.05
5747-3	3 ".....	1.15
5748	Single Surface.....	.85
5748-2	2 Gang.....	1.15
5748-3	3 ".....	1.20
5748S	Shallow & Recp.....	.65
5749	Switch & Recp.....	1.00
5751	Single Adp. Plate.....	.70
5752	2 Gang.....	1.25
5753	3 ".....	1.30
5760	Blank Extension Box.....	.95
5780	Chase Nipple.....	.30
5781&A	1/2 & 3/4 Box Connector.....	.35
5782&A	1/2 & 3/4 Pipe Coupling.....	.36
5783	1/2" Elbow Box Conn.....	.36
5784	1/2" Pipe Coupl.....	.36
5785	Comb. Connector.....	.28
5786	Adj. Offset Conn.....	.40
5788	Openwork Connector.....	.45

FITTINGS FOR No. 1000

Number	Description	Price
1001	Coupling.....	\$0.06
1002	Bushing.....	.04
1003	Clip.....	.06
1005	One Hole Strap.....	.08
1008	Hanger Assembly.....	.90
1009A	Hanger Clamp.....	.15
1009B	Ground.....	.20
1011	90 Deg. Flat Elbow.....	.40
1013	Adj. Elbow.....	.40
1017	Internal Elbow.....	.40
1018	External.....	.35
1020	Keyless Receptacle.....	.90
1020A	Angle.....	1.40
1020B	Blank or Outlet Box.....	.50
1028	Utility Box.....	.70
1035	Distribution Box.....	1.10
1039	6 3/4" Fixture.....	.90
1048	Switch & Recp Box.....	1.00
1082	Pipe Coupling.....	.60
1085	Comb. Connector.....	.35
1086	Offset Connector.....	.70
1087	Kick Plate.....	.32
1089	Reducing Connector.....	.15
1000F	Flex. Fitting 18".....	1.75

LEWIS METER AND SWITCH CABINETS

CLASS A	Amp.	Volts	Wire	Fuse	Neutral	MAIN FUSE ACCESSIBLE	Numbers	Price
	30	125-250	3	2	Solid.....	M7311-ML7311.....		\$15.20
	30	125-250	3	2	".....	M7311M-ML7311M.....		14.65
	30	125	2	1	".....	M7211-ML7211.....		14.75
	30	125	2	1	".....	M7211M-ML7211M.....		14.65
	60	125-250	3	2	Fused.....	M7211D-ML7211D.....		14.75
	60	125-250	3	2	Solid.....	M7312-ML7312.....		19.75
	60	125-250	3	2	".....	M7312M-ML7312M.....		19.05
	60	125	2	1	".....	M7212-ML7212.....		19.30
	60	125	2	1	".....	M7212M-ML7212M.....		19.30
	60	125	2	2	Fused.....	M7212D-ML7212D.....		19.30
CLASS B	30	125	2	1	Solid.....	M5211 or ML5211.....		\$12.10
	30	125-250	3	2	".....	M5311 " ML5311.....		12.80
	30	125	2	2	Fused.....	M 211 " ML 211.....		12.20
	30	125-250	3	2	Unfused.....	M 311 " ML 311.....		12.10
	30	250	2	2	Fused.....	M 221 " ML 221.....		12.95
	30	250	2	2	".....	M 322 " ML 322.....		15.30
	30	125-250	3	2	Unfused.....	M 321 " ML 321.....		12.70
	30	125-250	3	2	Solid.....	M 321SN or ML 321SN.....		12.70
	60	125-250	3	2	".....	M 322 or ML 322.....		15.30

N-SUNDRIES

PIPE NIPPLES

Size Conduit	Close Nipples—Galv.					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Cond.	\$0.07	\$0.08	\$0.12	\$0.16	\$0.20	\$0.24
Length Conduit	Standard Short Nipples—Black or Galv.					
2" to 3 1/2" Long.....	\$0.10					
2 1/2" " 4" ".....		\$0.12	\$0.15			
3" " 4 1/2" ".....			\$0.21	\$0.21		
3 1/2" " 5" ".....				\$0.35		
3 1/2" " 5 1/2" ".....					\$0.70	
Length Conduit	Long Nipples—Black or Galv.					
4" Long.....	\$0.10					
5" ".....		.14	\$0.14	\$0.20	\$0.24	\$0.30
6" ".....		.18	.17	.22	.28	.34
7" ".....		.18	.21	.27	.34	.40
8" ".....		.21	.23	.30	.37	.45
9" ".....		.22	.25	.33	.40	.50
10" ".....		.24	.27	.37	.40	.56
11" ".....		.30	.35	.45	.58	.70
12" ".....		.30	.38	.48	.61	.75

CHASE NIPPLES & COUPLINGS

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Chase Nipples, each	\$.10	\$.10	\$.10	\$.14	\$.25	\$.28	\$.32	\$.50
Couplings	.12	.12	.12	.14				

For Erickson Couplings, see Page PL-8.

CHASE MALE REDUCERS

CHASE FEMALE ENLARGERS

T & B or Similar

1 1/4" to 1 1/2" Reducer, each.....	\$.20
1 1/4" " 1 1/2" ".....	.25
1 1/2" " 1 1/4" ".....	.45
1 1/2" " 1 1/2" ".....	.25
1 1/2" " 1 1/2" ".....	.35
1 1/2" " 1 1/2" ".....	.50

NAILS—Insulated

Millonite Insulated Nails, per dozen.....	\$.05
Leather Nail Heads, ".....	.06
Staples Insulated, ".....	.05

PLUGS, ATTACHMENT

ATTACHMENT PLUGS COMPLETE

"Pony" Composition.....	Price
Standard.....	\$0.15
"Genuine "Bakelite".....	.20
Polarized Standard Comp. Plug.....	.30
Large Size Double T Slot Comp. Porcelain.....	.55
Weatherproof One Piece Comp.....	.50
Benjamin #903 Swivel Plug.....	.40
Pony Body Only.....	\$0.10
Standard Body.....	\$0.15
Large Body.....	\$0.35

10 AMP.—CAPS ONLY

For Attachment Plugs

"Pony" Cap Composition.....	\$0.10
"Standard" Cap.....	.10
"Genuine "Bakelite".....	.15
Large Size Cap Composition.....	.25
Plug With Extension Knob.....	.20
Soft Rubber Cap.....	.25
"Standard" Cord Grip Cap.....	.30
"Steel Covered Cap.....	.30
"Brass " Cord Grip.....	.40
"Steel " Cord Grip.....	.45
Disappearing Door Comp. Cap.....	.75
"Brass Cov. Cap.....	1.00
"Standard" Brass Cov. Finger Grip.....	.60
"Knostrain" Comp. Cap.....	.45
"Brass Cov. Knostrain.....	.75
Comp. Fusible Cap.....	.50
Polarized 2 Wire Comp.....	.25
" 2 " Brass Cov. Cap.....	.45
" 2 " Steel ".....	.30
" 2 " Cord Grip.....	.45

20 AMP. CAPS

For Polarized Devices

2 Wire Brass Covered Cap.....	\$0.85
3 " " ".....	1.00
3 " Steel Covered Cord Grip Cap.....	.90
3 " " ".....	1.10

30 & 40 AMP. CAPS

For Polarized Devices

30 Amp. 2 Wire Porcelain Cap.....	\$1.45
30 " 2 " Steel Cov. Cord Grip.....	1.80
30 " 3 " Porcelain.....	1.55
40 " 3 " Steel Cov.....	2.20
40 " 3 " Str. Cap Ground. C. G.....	2.15

Flasher Plugs

Diamond Flasher Button.....	\$0.60	No. 125 Speedoodle Plugs.....	\$2.50
"Propp" #530 Flasher Button.....	.50	No. 164 ".....	.60
"Rodele" 110 Volt " Plug.....	.50	No. 161 ".....	.80
" 220 Volt ".....	.65	No. 165 ".....	.90

PLUGS, APPLIANCE

Make	No.	Description	Price
American Beauty	802	Plug Complete for Small Irons.....	\$0.40
	806	" " Large ".....	1.25
	807	" " Toasters & Stoves.....	.20
Beaver	F-1	"Gripall" Super-Type Adjustable Cont.....	.45
"Gripall" & "Suitzall"	F-4	" " Nickel Alloy.....	.55
	F-5	" " Armored Casing.....	.55
	F-6	" " Nkl. Alloy Cont.....	.60
	F-7	" " Adj. Cont. Bakelite.....	.50
	F-22	"Suitzall" Heater Plug—Full Size.....	.20

Electrical Contracting, January, 1931

PLUGS, APPLIANCE, Continued

Beaver "Gripall" & "Suitzall"	F-31 Standard Heater Plug—Single Sided Cont.	\$0.15
	F-32 Heater Plug Double Sided Contacts	.20
	F-33 Armored Casing (F-32 Type Armored)	.25
	F-34 Medium Heater Plug—Bakelite	.25
	F-36 Small Heater Plug—Black	.20
	G-1 "Gripall" Heater Switch Plug Adj. Cont.	.60
	G-2 "Gripall" Heater Switch Plug Nickel Alloy Contacts	.90
	G-21 Competitive Push Button Type	.45
	G-22 New Toggle Type	.45
Bryant	668 Universal Appliance Plug with Switch	.85
	669 Switchless	.50
	752 Appliance Plug with Indicating Switch	.60
	2966 Small Switchless Plug	.45
Cutler-Hammer	7051 Appliance Plug with Switch	.60
G. E.	2602 Armored Heater Plug No Switch	.25
	2633 Large Heater Plug	.20
	2642 Switch "with"	.45
	2699 Small "No"	.25
	2826 "Handy Pull" Heater Plug	.35
Hemco	H250 Switchless Appliance Plug Bakelite	.50
	H260 Switch	.75
Hotpoint	CD6P1 Iron Plug No Switch	.45
	CD69P1 "with" Armored	.60
	CD79P1 "with"	1.00
Kool-Pull (Noark)	8037 Appliance Plug—No Switch	.75
	8039 "with"	1.00
Propp	5 One 4-All Appliance Plug—No Switch	.30
	52 Iron Plug with Switch	.50
	55 Standard Iron Plug—No Switch	.30
	56 Armored	.30
Reynolite	500 Heater Plug	.40
	510 Switch Heater Plug	.75
Rodale	P-21 Heater Plug No Switch Cold Molded	.15
	P-29 "Armored"	.20
	450 F tall Heater Plug—No Switch	.45
	610 Bakelite "Small"	.20
	615 "Armored Heater Plug—No Switch	.30
	850 Iron Plug with Switch	.45
	800 "Armored"	.65
Simplex	890 Armored Plug—No Switch	.75
	990 Deluxe Chromplate Plug	1.00
Sunbeam	A-85 Heater Plug	1.50
Torrid	B-070 Automatic Heat Control Plug	1.00
	B-080 Safety	1.00
Waage	3 & 4 Heat Plug Only	.50
Westinghouse	299423 Appliance Plug—No Switch	.75
	373656 "With"	1.00

PANEL BOARDS OR FUSE CABINETS

FRANK ADAM

All 30 Amp.—S. P.—NEC Fuses	4	6	8	12
"FBX" Safety Type Fuse Boxes	\$ 3.80	\$ 5.60		
"NR" "Main Cable Lug Only		\$ 8.90	\$11.00	
"NR" "Solid Neutral	11.15	13.40	15.60	
NR3G "Main Cable Lug Only		16.50	19.80	

All for Plug Fuses BENJAMIN-STARRETT					
No.	Type and Description	4	6	8	12
66104-12 NF	—One Fuse 3 Wire	\$ 5.20	\$ 7.40	\$ 8.90	\$11.90
66204-12 P	—Two Fuse 2 and 3 Wire Serv.	7.50	11.15	13.35	15.60 18.60
66304-12 NEF	—One Fuse with Switch Pl.	7.10	10.30	12.80	16.50 19.15
66404-12 EP	—Two Fuse with Switch Pl.	10.30	15.25	19.15	21.80 25.15

BULLDOG FUSEMENTS

No.	Description	2	4	6	8	10	12
CBS	Surface Black Finish with shield	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit
BOS	"Black Finish with-out Shield	\$1.80	\$2.30	\$3.90	\$7.00	\$9.75	\$10.30
BF	Flush Luminated Finish	1.65	2.15		8.75	10.30	11.75
BBF	"Black Finish	2.00	2.75	4.70			
BSF	"Lum. Finish with Toggle Switches	6.60	9.90	13.20	15.70	19.80	
BSSF	"Lum. Finish with one 30 A. Saftofuse	20.50	22.00	31.75	33.35	35.00	
BSSF	"Lum. Finish with one 60 A. Saftofuse	21.50	22.30	32.25	33.75	35.40	
BKF	"Lum. Finish with Pull Box	6.60	9.90	14.85	17.35	19.80	

All-Steel-Equip. Co., FUSE CABS

Style & No.	Description	2	4	6	8	12
C-702-4-6	Surface Small Type	\$1.80	\$2.55	\$3.95		
C-902-4-6	Flush Small Type	2.10	2.80	4.85		
D-3004 to 3074	Surface Type Single Fuse	3.20	5.10	\$7.50	\$10.10	
D-3034 to 3094	Flush Type	3.75	5.60	9.00	12.10	
D-4002 to 4012	Surface Type Double Fuse	3.20	5.10	10.10	23.00	36.00
D-4022 to 4032	Flush Type Double Fuse	3.75	9.00	12.10	27.00	45.00
DS-3304 to 4304	Flush or Surface-Sgl.	6.90	9.25	13.80	21.00	
DS-3502 to 4502	Flush or Surface-Double	6.90	9.25	21.00	34.50	70.00

KILLARK

Standard Flush Type Panels	2	4	6	8	10	12
Series KRP-2 to 12 Inclusive	\$2.00	\$2.90	\$4.75	\$6.50	\$8.50	\$10.75

CUTLER-HAMMER—Fuse Panels—Flush Mounting

Circuits	2 Cir.	4 Cir.	6 Cir.
Black Finish Series 4355 H1 to 6	\$ 1.90	\$ 2.60	\$ 4.65
Aluminum Finish Series 4355 H1 to 6	2.40	3.45	5.35
Circuits	8 Cir.	10 Cir.	12 Cir.
Black Finish Series 4355 H1 to 6	\$ 3.20	\$ 9.95	\$10.20
Aluminum Finish Series 4355 H1 to 6	8.65	10.95	11.65

G. E. or TRUMBULL—Residence Panel Boards

Surface or Flush Mounting	4	6	8	10	12
Single No 3104 to 3212	Circuit	Circuit	Circuit	Circuit	Circuit
Flush Mtg. or Fusing					
2906 to 2912	\$2.80	\$ 4.55	\$ 9.65	\$11.25	\$13.00
Surface Mtg.					
Double No. 3404 to 3412					
Flush Mtg. or Fusing					
2704 to 2712	9.10	12.40	18.15	23.10	26.40

"KILLARK" Fuse Cabinets

Standard Flush Type Panels	2	4	6	8	10	12
Series KRP-2 to 12 Inclusive	\$2.00	\$2.90	\$4.75	\$6.50	\$8.50	\$10.75

SQUARE D—Fuse Cabinets

Series 37000 to 39000	2	4	6	8	10	12
Flush Series 37000 Black	\$1.85	\$2.50	\$4.50	\$7.90	\$ 9.50	\$11.15
37000 Aluminum	2.35	3.35	5.10	8.30	10.00	11.15
Surface Series 39000 Black	1.85	2.50	4.50	7.90	9.50	11.15

NOTE: 2 & 4 Circuit Flush Type arranged for mounting direct to front side of studding with channels for lathe ends, each.....\$0.20

Combination Fuse Cabinets

60 Amp. Fuse Break and 30 Amp. Circuits	2	4	6	8
Flush Mounting Aluminum	\$7.45	\$12.40	\$14.00	\$14.85
Surface "Black"	6.45	10.75	11.55	12.40

WADSWORTH Fuse Cabinets & Panelboards

All Dead Front Single Fusing	2	4	6	8	10	12
Surface Mtg.	\$2.30	\$3.00	\$4.85	\$5.75	\$7.55	\$11.55
Flush Mtg Hanger Support	2.85	3.80	6.10	7.55	10.20	12.00
Flush Type for Tgle Sw.		6.85	11.10	13.75	16.40	19.85
100 Amp. Surface Mtg. Enc. Panel Boards			16 Circuit	20 Circuit	22 Circuit	
100 "Flush			\$22.00	\$25.35	\$32.00	
			24.75	28.00	34.65	

WESTINGHOUSE Junior Residence Type

Junior Residence Panels	2	3	4	6	8	10	12
No. K-64012-21 & 64052-61	\$2.50	\$2.70	\$3.75	\$5.35	\$8.75	\$10.30	\$11.70
Junior Building Panels for Toggle Switches							
No. K-64034-42 & 64074-81	6.60	9.90	13.20	15.70	19.80		

P-SUNDRIES

RUNNING THREAD, PIPE

Price per Foot	1/4"	3/8"	1/2"	3/4"	1"
	\$.25	\$.30	\$.45	\$.55	

SOLDERING PASTE

(Also on Page PL-25.)

Make	2 Oz. Cans	2 Oz. Tubes	4 Oz. Cans	Half Pound Cans	One Pound Cans
Allen	\$.25	\$.40	\$.50	\$.70	\$1.25
Burley	.20	.30	.40	.65	.85
Crescent	.25	.40	.60	.85	1.00
G. E.	.25	.40	.60	.85	1.50
Highland	.40	.60	.85	1.20	1.65
Nokorode	.25	.40	.60	.85	1.50
Star	.25	.40	.60	.85	1.00

PAINT & VARNISH, Insulating

Make	Per Pint	Per Quart	Per Gallon	Per Half Gallon	Per Gallon
Armajac Insulating Compound	\$0.50	\$0.75	\$1.25	\$2.50	\$2.50
Ajax Varnish No. 25	.40	.65	1.25	2.25	2.25
Enamelac Insulating Varnish	.40	.70	1.25	2.25	2.25
G. E. Black No. 457 Air Drying	.60	.85	1.40	2.60	2.60
G. E. Clear No. 152 Air Drying	.80	1.20	2.00	3.85	3.85
Mineratic Insulating Compound	.40	.75	1.50	2.50	2.50
P. & B. No. 2 Paint	.50	.75	1.25	2.50	2.50
Pothead Compound, per Pound					.55

CONDUIT PENNIES

Price Each	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
	\$.01	\$.01	\$.01 1/2	\$.02	\$.03	\$.04	\$.05	\$.07	\$.10

CONDUIT WOOD PLUGS

Price Each	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"
	\$.02	\$.03	\$.04	\$.08	\$.14	\$.22	

For Pipe Straps, see Page PL-25. For Solder, Sticks, etc., Page PL-25.

PLATES & PLUGS, RECEPTACLE

PLATES—For Flush Receptacles

All Types	Composition	.040 Gauge	.060 Gauge
Single or Duplex Plate	Lacquer B. Brass	\$0.20	\$0.20
Lift Cover Plate 1 Outlet	Lacquer B. Brass	.30	.35
Radio Plates—Sgle. or Duplex	Lacquer B. Brass	.15	.20
Telephone "One Outlet	Lacquer B. Brass	.20	.35
"Double	Lacquer B. Brass	.20	.45
Disappearing Door Plate Sgle.	Lacquer B. Brass		.75
"Duplex	Lacquer B. Brass		1.15
Chapman Receptacle	Lacquer B. Brass		.75
Blank Plates One Gang	Lacquer B. Brass	.20	.30
Bull's Eye and Single Plate	Lacquer B. Brass	.60	.70
"and 1 Switch Comb.	Lacquer B. Brass	.70	
"and 1 Recept.	Lacquer B. Brass		.65
Switch and Sgle. or Duplex Recep.	Lacquer B. Brass	.40	.50
Steel Plates for 30 and 40 Amp. Polarized Receptacles	Lacquer B. Brass		.75
Solid Brass Plates 30 and 40 Amp.	Lacquer B. Brass		1.50
Screwless Plates Bakelite for Hubbell Receptacles	Lacquer B. Brass		.55
Porcelain Enameled Plates for Sgle. or Duplex Receptacles	Lacquer B. Brass		.25
Mirror Glass Plates for Single Receptacle	Lacquer B. Brass		1.00
DeLuxe Metal Plates for Single or Duplex Receptacles	Lacquer B. Brass		.90
DeLuxe Wood Inlaid Plates for Single or Duplex Receptacles	Lacquer B. Brass		2.35

CAPS & PLUGS For Receptacles

	Blades	Price
10 Amp. Pony Composition Cap.		\$0.10
10 " Standard		.10
10 " Cap With Extension Knob		.20
10 " Brass Covered Cap		.40
10 " Steel		.15
10 " Cord Grip Cap		.30
10 " Tandem Blade Compo. Cap		.25
Radio Jack Plug Reversible		.50
Disappearing Door Plug Brass Top		1.00
10 Amp. 2 Wire Polaris. Comp. Cap.		.25
10 " 2 " Cord Grip Cap		.40
20 " 2 " Comp.		.50
20 " 2 " Cord Grip		.75
30 " 2 " Comp.		.75
30 " 2 " Cord Grip		1.65
10 " 3 " Comp.		.65
10 " 3 " Cord Grip		.65
20 " 3 " Comp.		1.00
20 " 3 " Cord Grip		.65
30 " 3 " Comp.		1.50
30 " 3 " Heavy Duty Angle Cap		2.50
Lamp Only 110 Volts for Bull's Eye Receptacles		.65

RECEPTACLES, FLUSH

STANDARD RECEPTACLES OR CONVENIENCE OUTLETS		Price
Without Plates		
Shallow Comp. Side Wired Single		\$.25
" " Duplex		.35
" " Single		.25
Deep Comp. Top		.35
" " Single		.40
" " Duplex		.60
" " Single		.40
" " Duplex		.60

SUNDRY RECEPTACLES

Plates Extra Except Where Marked "X"		Price
For Lift Cover Plate Single		\$.50
" " Duplex		.70
x With Rd. Met. Cvr. For 3 1/4" Box Single		.30
x " " " " Duplex		.45
x " " " " 4 " Single		.35
x " " " " 4 " Duplex		1.10
x With Rd. Brass Plate Small Single		1.10
" " Large		1.25
Edison Screw Base Recp. Single		.25
Chapman Receptacle		.65
Radio Single		1.00
" Duplex		1.35
Disappearing Door Recp. Single		.75
" Duplex		1.10
Screwless Plate Recp. Single		.30
" Duplex		.45
10 Amp. Polaris. For 2 Wire Single		.65
20 " 2 " " "		1.25
30 " 2 " " "		1.40
30 " 2 " " " Single		3.00
20 " 3 " " "		1.40
30 " 3 " " "		1.60
30 " 3 " " " With Box Cover		4.75
40 Amp. Polaris. 2 Wire		5.50

YAXLEY RADIO RECEPTACLES

Nos.	Connections	Brass	Bakelite
134	Several loud speakers	\$2.50	\$2.60
135	Loud speaker	1.00	1.10
136	Aerial & ground	1.00	1.10
137	Battery (with plug)	2.50	2.60
138	Electrical only	1.00	1.10
142	Double loud speaker	1.15	1.85
238	Loud speaker, aerial & ground	2.00	2.20
241	Aerial, ground & elect'l	2.00	2.20
242	Loud speaker & elect'l	2.00	2.20
239	Aerial, ground & battery	2.50	2.70
353	Loud speaker, aerial, ground & elect'l	3.00	

RECEPTACLE COMBINATIONS
With Plates

	Price
Pilot Light-Plate and Single Outlet Comp.	\$2.00
" " Duplex	3.50
" " Switch and Bull's Eye	3.00
" " Recept. Only With Plate	2.00
Switch and Plate 10 Amp. Sgle. Out. Comp.	1.75
" 20 "	2.50
Hubbell Switch Tap Combination Screw Plate #7093-Recep. #7163	1.75
Hubbell Switch Tap & Pilot Light Comb. Screw Plate #7317-Recep. #7280	3.35

RECEPTACLES, PORCELAIN

ALABAX RECEPTACLES AND FIXTURES

Symbol:	Column No. 1—Number of Alabax Fixture.							
	Column No. 2—Resale Price Standard White Glaze Finish.							
	Column No. 3—Resale Price All Over Color B-D-E-F-G-H-J-K-L-M.							
	Column No. 4—Resale Price Stripe Decoration No. 1A-2A-4A.							
Column No. 1	Column No. 2	Column No. 3	Column No. 4	Column No. 1	Column No. 2	Column No. 3	Column No. 4	
Number	White	Color	Stripe	Number	White	Color	Stripe	
AL 944	\$3.00	\$3.50	.....	AL 859-63	\$1.95	\$2.20	\$2.40
845	3.35	3.80	.....	864	2.50	2.95	3.40
846	3.65	4.00	\$4.50	865	2.80	3.25	3.70	
847	4.00	4.50	4.85	866	2.50	2.95	.....
848	2.00	2.25	2.40	867	2.80	3.25	.....
849-50	2.45	2.75	2.90	869-70	2.60	2.90	3.05	
851	1.50	1.75	1.90	871	1.65	1.90	2.10	
852	3.05	3.50	3.95	872	3.05	3.50	3.95	
853	3.35	3.80	4.25	873	3.35	3.85	4.25	

(Concluded in next column)

Receptacles, Surface

ALABAX RECEPTACLES AND FIXTURES—Concluded

Column No. 1	Column No. 2	Column No. 3	Column No. 4	Column No. 1	Column No. 2	Column No. 3	Column No. 4
Number	White	Color	Stripe	Number	White	Color	Stripe
AL 875	\$2.45	\$2.70	\$2.90	AL 2007	\$1.50	\$1.65	\$1.80
898	1.95	1.25	1.40	2008	1.50	1.75	1.95
919-90-221	70	2.00	2.20	2009	1.40	1.70	1.85
921	75	1.05	1.20	2010	1.55	1.80	2.00
923	2.45	2.70		2011	1.20	1.45	1.65
924	2.10	2.40		2012	1.25	1.50	1.70
929-30	2.05	2.35	2.50	2013	1.70	2.00	2.20
949-50	2.10	2.40	2.60	2014	1.85	2.15	2.30
951	1.15	1.40	1.60	2015	1.55	1.85	2.00
952	2.05	2.35	2.50	2371	1.25	1.50	1.70
960	1.05	1.35	1.50	2469	3.55	4.05	4.45
962	2.10	2.40	2.60	2471	3.10	3.40	3.85
969-70	2.25	2.55	2.75	2669	4.95	5.40	5.85
971	1.30	1.60	1.75	2671	4.45	4.90	5.35
980-82	1.70	2.00	2.20	2846	3.65	4.10	4.55
983	1.65	1.95	2.10	2847	3.95	4.40	4.85
984	1.50	1.75	1.95	2852	3.05	3.50	3.95
989	1.90	2.20	2.35	2859	3.35	3.85	4.25
990	1.95	2.25	2.45	2864	2.50	2.85	3.40
1200-02	2.10	2.40	2.55	2865	2.80	3.25	3.70
1201-03	2.40	2.70	2.90	2872	3.05	3.50	3.95
1273	.50	.65	.75	2873	3.35	3.85	4.25
1274	.80	.95	1.05	2990	2.20	2.50	
1275	.90	1.05	1.10	2991	1.60	1.90	
1276	.20	.30	.40	3100	2.45	2.90	3.35
1300-01	2.95	3.20	3.40	3101	2.10	2.55	3.00
1349-50	2.75	3.05	3.20	3102	1.85	2.30	2.75
1351	1.75	2.05	2.25	3103	1.50	2.40	
1360-70	2.90	3.20	3.35	4070	1.50	1.75	
1371	1.95	2.25	2.40	4071	1.30	1.55	
1449-50	2.85	3.10	3.30	4072	1.55	1.80	
1451	1.85	2.15	2.35	4073	1.35	1.60	
1469-70	3.90	3.30	3.45	9826	2.10	2.50	2.65
1471	2.00	2.30	2.50	9836	2.15	2.45	2.85
1475-76	2.80	3.05	3.25	9896	2.40	2.65	2.95
1477	3.45	3.75	3.95	9906	2.45	2.75	3.20

The above Prices do not include Glassware or Lamps.

RECEPTACLES, SURFACE

STANDARD RECEPTACLES or Lampholders

Keyless Porcelain Standard Base		Universal Nos	Price
Pony Cleat Receptacle No. S. H. Groove—Side Screws		50715	\$0.15
" " Round		9171	.20
Standard Cleat		28705	.35
" " Side		3402	.50
" " With		4013	.40
" " Brass Shell		9403	.45
" " Concealed		4000	.45
" " No. S. H. Groove		4001	.50
Oblong		58300	.50
" " Round		8105	.45
" " With		5074	.60
" " Removable Ring		4026	.60
Oblong		5074	.60
" " S. H. Groove for Midg.		4026	.60
Mogul-P & S No. 520—Arrow 5012—Hubbell 3464—G.E. 1194			.85
Miniature or Candelabra Receptacle (Small Type)		9445-6	.20
Extended Type		367	.25

OUTLET BOX RECEPTACLES or Lampholders
Pull and Keyless—Porcelain and Brass Shell

Standard Base		Price
Porcelain Pull for 3 1/4" & 4" Box		\$1.85
Brass Shell " 3 1/4" & 4" "		2.00
Porcelain Keyless for 3 1/4" Box		.40
Brass Shell " For 3 1/4" & 4" Box		.50
One Piece Porc. Pull Cord or Ch. 3 1/4" Box		.85
" " Keyless 3 1/4" "		1.00
Keyless Mounted Bk. Metal Cov. 3 1/4" "		.65
" " Galv. " 3 1/4" "		.30
" " Bk. " 4" "		.30
" " Galv. " 4" "		.35

T-SLOT BOX RECEPTACLES—Surface Type

	Price
10 Amp. Standard Receptacle	\$0.50
10 " " "	.50
10 " Receptacle with Covered Term.	.60
20 " Polarized Conduit Receptacle	.85
10 " Pol. Forc. Rec. for 3 1/4" Box	.50
10 " Duplex " 3 1/4" "	.55
10 " Sgle. " 4" "	.65
10 " Duplex " 4" "	.75

T-SLOT HEAVY DUTY & POLARIZED
Cleat and Concealed Bases

	Price
10 A. Small Concealed	\$.50
10 A. Small Cleat	.50
10 A. For Wood Molding	.50
10 A. Polarized Concealed	.70
10 A. Polarized Wood Molding	.80
10 A. Fielding Receptacle	.60
10 A. Polarized Concealed	.85
20 A. Polarized Cleat	.85
20 A. Polarized Concealed	.85
20 A. Polarized Wood Molding	.95
20 A. Polarized Concealed	1.10
30 A. Polarized Composition	1.35
40 A. Polarized Porcelain	1.15
40 A. Polarized Composition	1.80
Porc. Sub Base for 40 Amp. Rec.	.20

CANOPY OR FIXTURE RECEPTACLE

Pull for Ceiling Ring 7" Chain	\$0.30
" " " 4" Cord	.35
" " " Chain & Ins.	.32
" " " & Cord	.30
" " " 3" Chain	.55

HEAVY DUTY WEATHERPROOF SOCKETS—Continued

Shadeholders for above sockets.	Price
2½ Aluminum or Copper Extra	\$0.35
¾ " " " " " " " " " " " " " " " " " "	.60
¼ " " " " " " " " " " " " " " " " " "	.65

HEAVY DUTY SOCKETS—Benjamin

HEAVY DUTY SOCKETS—Benjamin		Price Each
Benco Keyless Socket with Clamp Ring	#4700 to #703 Medium Base	\$1.25
" " " " " " " "	" " " " " " " "	1.05
" Pull " " " " " "	" " " " " " " "	2.00
Benco Keyless Socket	Copper or Alum. #200-1-4 & #335 & 7	.75
" " " " " " " "	" " " " " " " "	.80
" Pull " " " " " "	#207-8 #225-26 #236-57 Brass, Copper or Alum	1.50
" Mega " " " " " "	" " " " " " " "	2.00
Benco Threaded Holders Only		
Polish. Alum. Weatherpri	#215 & #217	\$3.35
Copper	" " " " " " " "	4.00
Brushed Brass	" " " " " " " "	6.00

BENJAMIN MOGUL SOCKETS

BENJAMIN MOGUL SOCKETS		With Iron Yoke	With Alum. Yoke
	Without Yoke		
One Piece Socket with Lamp Grip.....	\$1.00	\$1.15	\$1.50
Two Piece Socket with Lamp Grip.....	1.20	1.45	1.70

BENJAMIN REFLECTOR SOCKETS

Porcelain or Shilar		With Type X or XR Fitting	
Medium Base Keyless	Tapped 1/4-1/4 N. No. 4650-51 & 65.		\$1.20
" " " "	Self-Locking 1/4-1/4 N. No. 4550-51-52-53.		1.45
" " " "	Shock Absorb. 1/4-1/4 N. No. 4870-71-72-80-81.		1.45
" " " "	Shock Absorb. Self Lock No. 4548-49-50-52-53.		1.90
" " " "	Full Chain No. 4534-35 & 4600-61-67.		2.05
Mogul Base Keyless	Shock Absorbing No. 4870-71-72.		1.95
" " " "	Shock Absorb. Self Lock No. 4548-49-50-52-53.		2.05
If X or XR Fitting not supplied on above sockets deduct .45			

SWITCHES, FLUSH TUMBLER

	Plates & Boxes Extra	Price
Square Handle Porcelain Cup—Sgl. Pole.....		\$.35
" " " " Dble. "		1.00
" " " " 3 Way .....		.60
" " " " 4 " .....		.90
" " Composition Cup—Sgl. Pole.....		.90
" " " " Dble. "		1.40
" " " " 3 Way		1.35
" " " " 4 "		2.40
20 Amp. Sgle. Pole		1.50
20 Amp. Dble. Pole .....		.60
Round Handle Porcelain Cup—Sgl. ....		.35
" " " " Dble.		1.00
" " " " 3 Way .....		.50
" " " " 4 "		3.00
	New Circuit Type	
Twin-2 Sgle. Pole Switches		\$1.35
Twin-1 Sgle. Three Way		1.50
Twin-2 Sgle. 3 Way Switches.....		1.65
Triplet-3 Sgle. Pole Switches.....		2.20
Triplet-2 Sgle. & 1-2 Way Switches.....		2.20
Lock Type Porcelain Cup—Sgl. Pole.....		1.50
" " " " Dble.		2.20
" " " " 3 Way		1.85
" " " " 4 "		3.80
EXTRAS—For Luminox Tip add for Each Handle.....		1.00
For Glo Guide Handle Switches add for Each.....		1.00

TUMBLER SWITCH COMBINATIONS

	Description	Price
10	A. D. P. Switch—Pilot Lt.—.060 Plate	\$3.00
10	" " " " Receptacle " "	1.75
20	" " " " 15A " "	2.50
	Switch—Tap & Pilot Light with " "	3.35
	" " & Receptacle " "	1.75

PLATES For Tumbler Switches

	1	2	3	4
	Gang	Gang	Gang	Gang
Stamped Brass Sprayed Finish .040 Thick.....	\$.15	\$.30	\$.45	\$1.10
" " Brush Brass .040 ".....	..20	..40	..60	1.35
" " Brushed .060 ".....	..25	..50	..75	1.35
" " Brushed .080 ".....	..30	..60	..90	1.60
Bakelite or Composition Molded.....	..20	..40	..60	1.35
Twin & Triple B. B. or Bakelite Plates.....	..25	..25	..25	..25
Comb. Switch and Recept. - Moulded Comp. ....	..30	..40	.....	.....
Pilot Light.....	..75	.....	.....	.....
Hubbell Bakelite Screwless Plates.....	..60	1.10	1.60	2.25
Bryant DeLuxe Wood Inlaid any Finish.....	2.75	4.70	7.70	.....
Aluminum Inlaid.....	1.00	1.75	2.45	.....
Guth Porcelain Enamel Plates.....	..25	..60	..00	.....
Glass Mirror Plates.....	1.00	1.75	2.50	3.25
Blank Plate .040 Brush Brass Finish.....	..30	..60	..90	.....

SWITCHES, FLUSH PUSH

Plate & Boxes Extra						Price
Standard Shallow Type Porcelain Cup—Single Pole.....						\$0.38
" " " " " " " " " " " "				Double		1.00
" " " " " " " " " " " "				" " " " " " " " " " " "	4 Way	3.00
Deep Type Porcelain Cup—Single Pole.....						.75
" " " " " " " " " " " "				Double		1.18
" " " " " " " " " " " "				" " " " " " " " " " " "	3 Way	1.18
" " " " " " " " " " " "				" " " " " " " " " " " "	4 " " " " " " " " " " " "	3.30
Special High Grade Composition Cup—Single Pole.....						1.40
" " " " " " " " " " " "				Double		1.70
" " " " " " " " " " " "				" " " " " " " " " " " "	3 Way	2.70
" " " " " " " " " " " "				" " " " " " " " " " " "	4 " " " " " " " " " " " "	3.70

Plate and Boxes Extra—Continued

Lock Type Porcelain Cup—Single Pole.....	\$1.50
Double.....	2.20
3 Way.....	2.20
4.....	3.80
Electrolier Non-Indicating.....	1.75
Indicating.....	1.90
Extra for Luminous Button Add Per Switch.....	.40

PUSH SWITCH COMBINATIONS

With Plates		Price
Bryant 117	D. P. Indicat. Switch Flush Receptacle & .060 Plate.....	\$2.35
413	One Push Switch-Bulls Eye and Solid Plate.....	4.50
518	Disap. Door Recp. Bulls Eye—Solid Plate.....	8.25
465	D. P. Flush Switch & Pilot Lamp .060 Plate.....	3.05
467	Flush Switch—Flush Recp.—Bulls Eye—Solid Plate.....	5.75
558	Duplex.....	6.00

PLATES For Flush Push Switches

[illegible]

SWITCHES, SURFACE SNAP

METAL COVERED SNAP SWITCHES

Poles	Voits	Type	Size	5	10	20	30
Single	125	Non-Indicating.....	Pony	Amp. \$.35	Amp.	Amp.	Amp.
"	"	Indicating.....	"	.40	"	"	"
"	"	Non-Indicating.....	Standard	.60	\$.75	\$1.40	\$2.15
"	"	Indicating.....	"	.85	"	"	"
Double	250	Non-Indicating.....	"	.90	1.05	2.20	2.65
"	"	Indicating.....	"	1.00	1.20	2.40	2.90
Triple	"	Non-Indicating.....	"	"	2.95	3.75	4.50
"	"	Indicating.....	"	"	3.10	3.85	4.60
3-Way	125	Non-Indicating.....	"	.90	1.50	2.40	2.90
4-Way	"	Non-Indicating.....	"	1.35	3.00	3.75	4.50
Electrolier	"	Non-Indicating.....	"	1.45	1.45	2.20	2.20
"	"	Indicating.....	"	1.65	1.65	2.35	2.35

ALL PORCELAIN SNAP SWITCHES

Poles	Voits	Type	Size	5	10	20	30
Single	125	Non-Indicating.....	Pony	Amp.	Amp.	Amp.	Amp.
"	125	Indicating.....	"	\$.65	...	...	...
"	125	Non-Indicating.....	Standard	\$.85	1.00	1.50	2.00
"	125	Indicating.....	"	.75	1.00	1.50	2.50
Double	250	Non-Indicating.....	"	.95	1.20	2.40	2.90
"	250	Indicating.....	"	1.10	1.35	2.60	3.00
3-Way	125	Non-Indicating.....	"	.95	1.35	2.60	3.00
"	125	Indicating.....	"	1.50	1.50	...	...
Electrolier	125	Non-Indicating.....	"	1.50	1.50	...	...
"	125	Indicating.....	"	1.70	1.70	...	...

TUMBLER OR TOGGLE SNAP SWITCHES

	Metal or Composition Covers			
	Single Pole	Double Pole	3 Way	4 Way
125-250 Volt				
5 Amp. Closed or Slott. Base.....	\$.35	\$.85	\$.80	\$1.40
5 Amp. with Outlet Box Cover.....	.55	....	.90	....
10 Amp. Closed or Slott. Base.....	.80	1.10	1.25	....

SNAP SWITCHES FOR WOOD MOLD, CONDULETS, ETC

	Metal Covered		All Porcelain	
	5 Amp. 125 Volts	Non-Indicating	Indicating	Non-Indicating
Single Pole.....	\$.65	\$.60	\$.75	\$.70
Double.....	1.20	1.10	1.20	1.10
Three Way.....		1.00	1.20	...
Electroliner.....	1.50	1.50	....	....

PARTS FOR SNAP SWITCHES

Handles—Standard Type Each	\$.12	Ratchet Type	.....	.25
Bases—Porcelain 5 Amp.	\$.12	10 Amp.	\$.15	20 Amp.
Covers—10 Amp. & Under Metal	\$.15	Porcelain	.....	.25
Over 10 Amp.	.30		.....	.35

**SWITCHES, PULL CORD, CHAIN,
CANOPY, LEVOLIER, ETC.**

PULL CORD SWITCHES—BODIES ONLY

Small Socket Type		Price
Ceiling—Bottom Pull		\$0.9
Wall—Side Pull		.9
Rosette—Side Pull		.9
Fixture—Bottom Pull		1.2
	1 1/2" Brass Cap	.10
	1 1/4" Brass Cap	.3
	1 1/2" Brass Cap	.2
Addition	Small Cleat Base	.4
for	Small Slotted or Concealed Base	.3
Caps and Bases	Large Concealed Base	.4
for	Wood Moulding Base	.3
Above Switch	Small Box Base	.6
Bodies	3 1/2" Box Base Brass Covered	.6
	4" Box Base Brass Covered	1.10
	3 1/4" Box Cover with Ring	.2
	4" Box Cover with Ring	.2

Motor specialists— Forward March!

"Forward march" is the next logical order. Why hesitate?

> > > There is a Wagner branch manager, salesman, or service manager near you. It is his job to co-operate with you; orders from Wagner headquarters leave no doubts in his mind. Each Wagner salesman is a motor specialist, supplied with engineering data, qualified to help you select the motor for the job and to land the order, too.

> > > Two can do more than one. Let a Wagner salesman be your "partner" the next time a motor job is up. Just get

Again we restate our policy and attitude to the Electrical Contractors who are motor specialists or qualified to become such.

We believe that the motor specialists are the proper channels thru which "user" motor business should come to us, and that our sales representatives should not compete with our own dealers for motor business at any time, but on the other hand should seek and welcome an opportunity to cooperate with them.

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VARNISHED CAMBRIC INSULATION

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commercial building circuits

THERE is an increasing use of higher operating voltages for feeder and power circuits in commercial buildings. Varnished cambric insulated cables are often preferred for this work. They are particularly well suited for use in hot or oily places, which makes them superior to rubber for motor, generator, transformer and oil-switch leads. They are useful around pumping, ventilating and elevator machinery and for high-tension risers in tall buildings. In dry or moderately damp places they may be used without a lead sheath. Their use involves no technique not already familiar to experienced electricians.

For over twenty years The OKONITE Company has manufactured OKONITE VARNISHED CAMBRIC cables of the highest quality. Contractors who have work in prospect which might benefit by the use of varnished cambric cables are invited to ask us for engineering assistance and prices. Please write our nearest office.

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WAKEFIELD builds units to meet every commercial requirement. If you face cheap competition we can help you out. If it is an ordinary job we have the Wakefield Standard Line—the most complete and widely-sold line of commercial hangers on the market. If it is a bank, auto display room or similar interior calling for high grade equipment, we have units which enable you to compete successfully in quality and appearance.

To The
F. W. WAKEFIELD
Brass Company,
Vermilion, Ohio,
U. S. A.

Without obligation, please put the undersigned upon the mailing list of "The Red Spot Habit." At this time we are interested

in receiving sales data on

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When new building jobs are scarce, you can create RE-lighting jobs. The reason is simple. When a building operator's business is bad he quits, but when a retail merchant's business is bad he knows he must do something about it. That is the lighting specialist's opportunity . . . The best stimulus for depressed retail business is better lighting. Prove this truth to the merchant and he will buy . . . The F. W. Wakefield Brass Company publishes a little bulletin called "The Red Spot Habit." During the depression we have been telling in this bulletin how "Red Spot" contractors all over the country have been selling RE-lighting installations—not only how they got the business but how they got their price.

We will be glad to send "The Red Spot Habit" to anyone interested.
It is free.



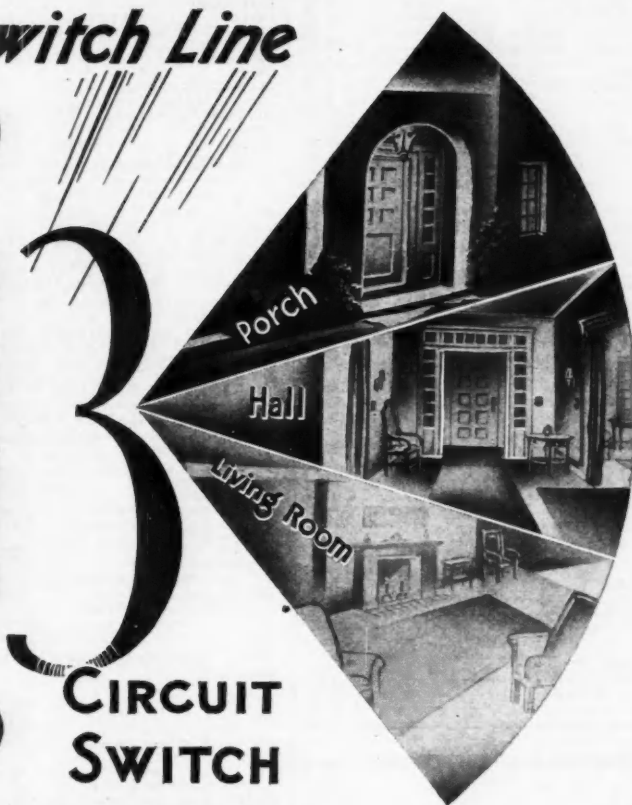
The unit here illustrated is the Wakefield Semi-Indirect embossed suspension hanger for 500-, 750- and 1000-watt lamps. It is probably our finest product. But we also make excellent commercial units costing pennies where this one costs dollars. We can serve you well and at proper prices, no matter what your requirements may be. Write for data.

The
F. W. Wakefield Brass Company
Vermilion, Ohio, U. S. A.

Most Complete 1, 2 and 3-Circuit UNIFIED Switch Line

H & H

TUMBOLIER



CIRCUIT
SWITCH

No. 6890 TUMBOLIER

NEW ENLARGED LINE of Bakelite-Base Switches—to accommodate every combination of circuits in general use today. Control one, two or three circuits through a *single-gang* plate handily located, instead of two or three switches separately placed or grouped in a multi-gang plate. Neatly UNIFIED, stylish, inconspicuous. Example: Porch, hall and living room lights are controlled by 3-lever Tumbolier Switch No. 6890 illustrated above. Two rooms—any two lighting circuits—are worked with 2-lever Tumbolier No. 6899. A 1-lever Tumbolier No. 6815 completes the line and harmony of effect where a single switch should be separately placed for convenience. All numbers furnished with *locking feature*, if specified by adding "L" to Catalog number. Regular and lock switches take same *standard plate*; brown BAKELITE to match switch. * Write for Catalog data-sheet for full list of circuit combinations.

HART & HEGEMAN DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC CO.

HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890

"Square D" Without End Walls Live & Dead Fuse Type

Number	Amps.	Pc	Fused	Neutral	Description	Price
55211	30	2	1	Plug	Single Type Fuse Dead.....	\$ 2.35
58211	30	2	2	"	" " " Live.....	2.95
SK-916	30	2	1	"	" " " Live.....	2.95
55311	30	3	2	"	" " " Dead.....	3.70
57311	30	3	2	"	" " " Live.....	3.70
15211	30	2	1	"	Gang Type Fuse Dead.....	2.80
18211	30	2	2	"	" " " Live.....	3.35
39231	30	3	2	"	Gang Type Access. M. Fuse.....	4.40
39231	30	3	2	"	Gang Type Access. M. Fuse.....	5.20
15311	30	3	2	"	" " " Dead.....	4.15
17311	30	3	2	"	" " " Live.....	4.15
58251	30	2	2	Cart.	Extra for End Wall.....	.30
26251	30	2	2	"	Cartridge Fuse Live.....	3.30
57351	30	3	2	"	" " " Dead.....	4.05
28252	60	2	2	"	" " " Live.....	4.05
27312	60	3	2	"	" " " Live.....	8.45
14352	60	3	2	"	" " " Live.....	8.90
18252	100	2	2	"	" " " Dead.....	19.80
27313	100	3	2	"	" " " Live.....	15.05
14313	100	3	2	"	" " " Live.....	15.95
					" " " Dead.....	27.30

Number	Amps.	Pole	Fused	Neutral	Description	Price
26311	30	3	2	Plug Solid	Plug Type Fuse Dead.....	\$ 2.58
26351	30	3	2	Cart. "	Cart. Type Fuse Dead.....	4.05
SK-659	30	3	2	Cart. Switched	Cart. Type Fuse Dead.....	4.60
SK-660	60	3	2	" "	Cart. Type Fuse Dead.....	11.70
SK-674	100	3	2	" "	Cart. Type Fuse Dead.....	19.20

"Square D" Accessible Main Fuse Type

Number	Amp.	Pole	Fused	Price
30391	30	3	3 Cart.....	\$10.65
30392	60	3	3 ".....	20.35
30393	100	3	3 ".....	30.00

Number	Amp.	Pole	Fused	Price
10391	30	3	3 Cart.....	\$10.05
10392	60	3	3 ".....	18.60
10393	100	3	3 ".....	28.25

METER TEST TYPE					Price
Number	Amp.	Pole	Fused		
36351	30	3	3 Cart.	\$11.00
36352	60	3	3 "	17.80
36393	100	3	3 "	26.50

Number	Amp.	Pole	Fused	Price
SK-671	30	3	3 Cart.....	\$ 4.60
SK-672	60	3	3 ".....	11.70
SK-673	100	3	3 ".....	19.20

End Walls for 30 Amp. Switches.....	\$30
60 & 100 Amp. Switches.....	80
Trough Closing Plates No. 20533 & 34.....	10
Connecting Trough No. 20733—3½' Long.....	45
20738—8½'.....	30
Universal End Wall & Shutters.....	30
Meter Shutter only No. 24388.....	10

SK2158 with Test Block.....	Enam.	Galv.
SK2186 without Test Block.....	\$7.05	\$9.55
	4.85	7.30

"Square D" Single Throw, Industrial Switches Quick Break Only

250 Volts Fusible			575 V. AC with Arc Suppres.			Fused and Unfused	
Amps.	2 Pole	3 Pole	Amps.	Description	3 Pole		
30	#55261 \$3.20	#55351 \$5.20	30	575V. Fused....	46341	\$10.90	
60	#45232 \$12.75	#45352 15.50	60	575V. Fused....	46342	\$13.90	
60	Solid Neutral #47312	9.10	60	575V. Fused....	46342	13.60	
60	#45253 \$12.75	#45353 15.50	100	575V. Not Fused	41343	17.75	
100	Solid Neutral #48314	14.60	100	575V. Fused....	46343	21.80	
200	#46254 \$20.00	#46354 28.40	200	575V. Not Fused	41344	22.25	
200	Solid Neutral #48314	22.75	200	575V. Fused....	46344	38.35	

"Square D", Industrial Quick Make & Break, Single Throw

230 V. DC. and AC. Fusible			250-600 V. DC. and 575 V. AC. Unfusible		
Amps.	2 Pole	3 Pole	Amps	2 Pole	3 Pole
x30		\$80351 \$13.65	x30	\$81252 \$ 9.55	\$81351 \$11.40
60	\$86252 13.65	\$86352 18.20	30-60	\$81262 12.75	\$81342 15.90
100	\$86253 20.90	\$86353 27.30	100	\$81263 20.95	\$81343 24.16
200	\$86254 36.40	\$86354 40.95	200	\$81264 28.20	\$81344 34.66

x60 Amp. Sp. with 300 Amp. Spacing (x=250 Volts only)

"Square D", Quick Break, Industrial, Single Throw

250 Volts		Single Throw	
No.	2 Pole	Description	3 Pole
No. 89251	\$3.20	Quick Make & Break	No. 89351 \$ 5.20
91251	2.65	Not Quick Break	91351 4.00
x90251	7.75	Quick Break Only	x90351 10.00
(x 60 Amp. Switches with 30 Amp. Clips).			

"Square D", Quick Make & Break, Single Throw

Numbers Types		Amps.	Volts	2 Pole 3	1 Pole 4	4 Pole
76251-351-451	Cover Control.....	30	250 V.	\$15.50	\$16.40	\$22.75
76332-76432	" " " "	60	250 V.			\$1.85
76332-76441	" " " "	60	575 V. AC.			\$1.85
76342	" " " "	60	575 V. AC.			\$2.75
69251-351-451	without cover Cont. .	30	250 V.	13.65	14.60	20.95
69352-69452	" " " "	60	250 V.		20.95	30.00
69341-69441	" " " "	60	575 V. AC.		20.95	30.00
69342	" " " "	60	575 V. AC.		31.00	
76351-351	Time Protective.....	30	575 V. AC.	6.40	6.65	
75341 & SK2054	Time Protective.....	30	575 V. AC.		11.85	13.65
No. 98251	For Small AC & DC Motors up to	4 1/4	H. P. 230 Volts AC.			1.85

**Cutler-Hammer (T-V) Single Throw Industrial Type
Series 4131**

250 Volts DC or AC Fusible				575 Volts		AC Fusible			
Amps	2 Pole	3 Pole	Amps	3 Pole	4 Pole				
30	4131H2	\$ 3.20	4131H3	\$ 5.20	30	4131H24	\$10.90	4131H34	\$18.20
60	4131H3	8.20	4131H14	10.00	60	4131H25	13.65	4131H35	20.00
100	4131H4	12.75	4131H15	15.00	100	4131H26	21.85	4131H36	36.40
200	4131H5	20.00	4131H16	26.40	200	4131H27	38.25	4131H37	51.90
400	4131H6	49.15	4131H17	67.35					

125-250 Volt Solid Neut. Fusible				Non-Fusible Type 250 DC 500-600 AC			
Amps	3 Pole	4 Pole		Amps	2 Pole	3 Pole	
30	4131H39	\$ 6.75	4131H44 \$ 8.20	x30	4131H54	\$ 3.20	4131H58 \$ 4.10
60	4131H40	9.00	4131H45 11.40	60	4131H55	8.20	4131H59 8.65
100	4131H41	14.60	4131H46 20.50	100	4131H56	10.90	4131H60 12.30
200	4131H42	22.75	4131H47 31.85	200	4131H57	19.10	4131H61 22.75
400	4131H43	63.70	4131H48 82.00	x30	250 Volts Only		

Cutler-Hammer (T-V)

Amps	Description	2 Pole Numbers	Price	3 Pole Numbers	Price
30	For Plug Fuses.....	4141H1&2	\$ 1.65	4141H3-4	\$ 2.25
30	2 Blades - 2 Fuses.....			4141H5	2.30
30	For Cartridge Fuses.....	4141H6		4141H6-10	2.90
30	For Cartridge Fuses.....	H4141H7	2.75		
30	For 2 Cart. Blades-2 Fuses.....			4141H11	3.25
30	Non-Fusible.....	4141H23	2.35	4141H24	4.10
60	For Cartridge Fuses.....	4141H13	6.70	4141H14-15	7.80
60	For 2 Blades & 2 Fuses.....			4141H16	12.65
100	For Cartridge Fuses.....	4141H18	10.30	4141H19-20	12.65
100	For 2 Blades & 2 Fuses.....			4141H21	11.90

Cutler-Hammer (T-V) Without End Walls

Meter Test Type		Without End Wires	
30	For Live Fuse Type		
30	For Plug Fuses.....	4307 H1&5	\$ 2.95 4307 H9 \$ 3.70
30	For Cartridge Fuses.....	4307 H2&6	3.30 4307 H10 4.00
60	For Cartridge Fuses.....	4307 H3&7	8.45 4307 H11 8.95
90	For Cartridge Fuses.....	4307 H4&8	15.05 4307 H12 16.00
	Dead Fuse Type		
30	For Plug Fuses.....	4309 H1	2.40 4309 H3 3.70
30	For Cartridge Fuses.....	4309 H4	3.80 4309 H6 4.30
30	For Cartridge Fuses.....	4309 H7	12.00 4309 H8 12.50
100	For Cartridge Fuses.....	4309 H10&11	21.20 4309 H12 23.00

Cutler-Hammer (T-V) Without End Walls

Accessible Main Fuses		Without End Wall	
Test Type			
30	For Plug Fuses.....	4325H1&2	\$ 4.00 4325H3 \$ 4.50
30	For Cartridge Fuses.....	4325H4&5	4.80 4325H6 4.80
60	For Cartridge Fuses.....	4325H7&8	15.05 4325H9 15.05
100	For Cartridge Fuses.....	4325H10&11	23.85 4325H12 25.60
Non-Test Type			
30	For Plug Fuses.....	4327H1&2	3.65 4327H3 4.00
30	For Cartridge Fuses.....	4327H4&5	4.60 4327H6 4.60
60	For Cartridge Fuses.....	4327H7&8	14.15 4327H9 15.00
100	For Cartridge Fuses.....	4327H10&11	23.00 4327H12 24.00

Meter Service and Entrance Switches

All 230 V.—A. C.			Without End Wall			
Description			30 A	60 A	100 A	200
Scaled Fuses-Test	3 Phase	3 Wire ..	\$11.35	\$17.60	\$27.30	\$57.25
Access.	"	"	13.85	33.45	50.15	90.60
"	"	"	11.45	21.15	30.80	66.00
"	"	"	15.60	37.00	53.70	98.60
"	"Non	"	10.85	19.35	29.05	48.45
"	"	"	11.45	21.15	30.80	56.35

Cutler-Hammer (T-V)

No.	Without End Walls	Price
4311H1	All 30 Amp. Standardized Meter Service Switches	\$3.75
4311H2	Branch Circuit Type.	4.00
4311H3		4.60

For Detailed Description See Cutler-Hammer (Trumbull Vanderpool) Catalog

SHUTTERS END WALLS

Cutler-Hammer (T-V)

	30 Amp.	60 & 100 Amp.
Single Piece End Wall used with Cabinet.....	\$.35	\$.80
Shutters for Shutter Type End Wall.....	.15	.30
Conduit End Wall.....	.35	.80
Universal End Wall.....	.35	

Switches

Single Throw—Series 4111

MOTOR STARTING SWITCHES						
Manual Operated		T-V	Amps	Volts	2 Pole	3 Pole 4 Pole
Series	Description					
4151H1	Light Duty Motor Sw. 1/2HP or Less.....		30	115	\$ 1.65	.....
9115H1	Motor Switch with Thermal Cutout.....		30	250		\$13.90 \$10.30
4231H	For infrequent Duty.....		30	550	6.50	5.85 9.75
4246H	For infrequent Duty 1/2HP.....		20	250	12.50	13.20 16.65
4246H	For infrequent Duty 3/4HP.....		30	440		19.65 23.65
4246H	For infrequent Duty 7/8HP.....		60	220	17.30	19.65 26.85

Trumbull Electric Closed or Open Ends

STANDARDIZED MAIN ENTRANCE SWITCHES				
Trumbull Electric Single Phase or DC Solid End Plate				
16361 to 16368	30	125-250	For Plug Fuses.....	\$3.30
16371 to 16378	30	"	" Enclosed Fuses.....	3.65
16381 to 16388	60	250	"	9.25
16391 to 16398	100	250	"	15.85

Trumbull Electric For Meter Testing Open End

ACCESSIBLE FUSE METER SWITCHES				
Trumbull Electric With Test Blades With and Without End Walls				
18111.....	30	125	For 1 Plug Fuse....	\$ 3.55
18211-18311.....	30	125	Plug Fuses.....	\$4.55
18121.....	30	125-250	1 Enclosed Fuse.....	3.95
18221-18321.....	30	" "	Enclosed Fuses.....	4.90
18122-222-322.....	60	" "	" "	5.50
18123-223-323.....	100	" "	" "	24.55
				28.40

Trumbull Electric With Test Blades With and Without End Walls

Without Test Blades			
†10111.....	30	125	For 1 Plug Fuse.... \$ 3.35
†10211-†0911.....	30	125-250	Plug Fuses..... 3.70
†10121.....	30	"	1 Enclosed Fuse..... 3.95
†10221-†10321.....	30	"	Enclosed Fuses..... 4.65
†10122-222-322.....	60	"	"..... 14.50
†10123-223-323.....	100	"	"..... 23.35
†No End Walls.		†With End Walls.	

Trumbull Electric With Test Blades With and Without End Walls

Without Test Blades				
20111	30	125	For 1 Plug Fuse....	\$ 3.10
20111-20111	30	125-250	" Plug Fuses.....	3.10 \$ 3.30
20121	30	125	" 1 Enclosed Fuse	3.45
20221-20321	30	250	" Enclosed Fuses	3.75 3.90
20122-222 & 322	60	250	" Enclosed Fuses	12.35 13.65
20123-223 & 323	60	250	" Enclosed Fuses	20.70 22.00
†No End Walls.			†With End Walls.	

Trumbull Electric Without End Walls

POLYPHASE ENTRANCE & METER SIZES					
Trumbull Electric					
Series Nos.	Style	30 Amp.		60 Amp.	
		3 Wire	4 Wire	3 Wire	4 Wire
16379	Entrance—"DO-ALL"	\$ 4.70			
16381-16623	Acc. Fuse—Test Conn.	18.50	\$21.10	\$27.00	\$37.00
17321-17623	Acc. Fuse without Test Conn.	10.95	12.80	19.40	22.00
26321-26623	Sealed Fuse with Test Conn.	11.50	14.40	17.60	33.50
				100 Amp.	
Series Nos.	Style			3 Wire	4 Wire
15321-15623	Acc. Fuse—Test Conn.			\$30.80	\$47.50
16321-16623	Acc. Fuse without Test Conn.			28.05	38.05
26321-26623	Sealed Fuse with Test Conn.			27.30	44.00

Trumbull Electric

TYPE "A" SWITCHES

230 Volts Fusible 230 Volts—No Fuse

Trumbull "SNUF-ARC" TYPE

*230 V. AC. no "Snuf Arc"

Trumbull Single Throw, Quick Make & Break

Fusible				Solid Neutral				
Amp	2P. 230	AC-DC	3 Pole	230 V.AC	3 Pole	2 Blades	3 4 Pole	3 Blades
60.....	44222	\$ 8.65	44322	\$10.50	43322	\$ 9.55	43422	\$11.85
100.....	44223	13.20	44323	15.95	43323	15.00	43423	20.95
200.....	44224	20.50	44324	26.85	43324	23.20	43424	32.30

ALL 30 AMP. PORCELAIN BASE

TYPE C METER ENTRANCE

2 Pole Fusible 3 Pole Fusible 4

SOLID NEUTRAL FUSIBLE

UNIVERSAL METER SERVICE SEALED MAIN FUSES

Westinghouse "WK-57" Meter Testing

STANDARDIZED METER SWITCHES

STANDARDIZED METER SWITCHES

METER SERVICE AND ENTRANCE SWITCHES

METER SERVICE AND ENTRANCE SWITCHES ACCESSIBLE FUSE TYPE

ACCESSIBLE FUSE TYPE Westinghouse "WK-65"									
Amps.	Fused For Plug	With Test Facilities				Without Test Facilities			
		2 Pole		3 Pole		2 Pole		3 Pole	
		No.	Price	No.	Price	No.	Price	No.	Price
30		65000	\$ 3.50	65002	.....	65010	\$ 3.30	.....	.....
30		65001	4.00	65003	\$ 4.35	65011	3.65	65012	\$ 4.00
30	Enclosed	65005	3.90	65004	4.85	65006	3.90	65014	4.60
30		65003	4.85	65005	.....	65013	4.60	65014	.....
60	"	65005	14.95	65006	15.85	65015	14.10	65016	14.95
100	"	65007	23.70	65008	25.45	65017	22.80	65018	23.70

PL-24 **Switches**

Switches

POLYPHASE METER SWITCHES **Westinghouse "WK-54"—Sealed Main Fuses**

Amps.	3 Pole	230 Volt AC—Less End Wall	Price
30	60266	3	\$11.00
60	60267	3	16.70
100	60268	3	26.30

Westinghouse "WK-65"—Accessible Fuses

Amps.	3 Pole	230 Volt AC—Less End Wall	Price
30	65100	3	\$11.00
60	65101	3	18.45
100	65102	3	28.05

METER TRIMS—END WALLS—TROUGHS **For Meter Switches**

One Piece Meter Trims	30 Amp.	60 & 100 Amp.
Blank End Wall or Shutter Type End Wall	\$0.35	\$0.80
Shutter Type Meter Trim or Adapter Trim	.35	.80
New Universal Trim with Slide	.15	.30
Replacement Plate or Adapting Plate	.15	.30
Wiring Trough 2-3 & 4" long. 40c-5" 45c-6" 50c-7" 55c-8" 60c		
Fuse Receptacle #R57252	Less Fuses	\$1.25

"TYPE A" INDUSTRIAL SWITCHES

Westinghouse "WK-66"—Quick Make & Break

250 V. DC—230 V. AC—Fusible				600 V. DC—575 V. AC—Fusible			
Amps.	2 Pole		3 Pole	2 Pole		3 Pole	
30	66100	\$10.90	66101	66020	\$16.35	66021	\$19.95
60	66103	13.60	66104	66023	17.25	66024	20.90
100	66106	20.90	66107	66026	27.25	66027	31.75
200	66109	36.30	66110	66029	42.65	66030	52.65

Amps.	250 V. & 600 V. DC Non-Fusible		230 & 575 V. AC—Non-Fusible		
	2 Pole		3 Pole	4 Pole	
30	#60127	\$ 9.55	#66128	#66129	\$16.35
30-60	66047	13.60	66048	66049	21.80
100	66056	20.90	66057	66058	31.75
200	66059	28.15	66060	66061	46.30

"TYPE C" INDUSTRIAL SWITCHES

Westinghouse "WK-97"—Quick Make & Break

	250 V. DC—230		V.AC-Fusible		575 Volt AC-Fusible			
Amps.	2 Pole		3 Pole		3 Pole		4 Pole	
30	597100	\$ 5.45	597101	\$ 6.80	597151	\$10.90	62152	\$18.15
60	597103	8.15	597104	10.00	597154	13.60	597155	19.95
100	597106	12.70	597107	15.45	597157	21.80	597158	36.30
200	597109	19.95	597110	26.30	597160	38.10	62161	51.75

250 V. DC. & 230 V. AC-Non-Fus.				575 Volts AC-Non Fusible				
30	597010	\$ 5.00	597011	\$ 6.35	597054	\$10.90	597055	\$18.15
60	62013	8.15	597014	8.60	597054	10.90	597055	18.15
100	62016	10.90	597017	12.25	597057	17.25	597058	27.25
200	62019	19.05	597020	22.70	597060	29.05	597061	46.65

ENTRANCE SWITCHES

Noark Closed Ends

Number	Amps.	Volts	Fused For	2 Pole	3 Pole
8283-8383-8393	30	125	Plug Fuses	\$1.65	\$2.50
8683-8693	30	125	N.E.C. Quick Break	1.80	3.20
8226-1-8136-1	60	250	"	6.65	7.25
8221-1-8131-1	100	250	"	10.25	11.90

METER SERVICE SWITCHES

Noark Sealed Service SECO Without End Walls

Number	Amps.	Volts	Fused For	2 Pole	3 Pole
9993	30	125	Plug Fuses	\$2.40	\$3.75
9543-53-23	30	125	"	3.50	3.75
9563-9533	30	250	Enclosed Fuses	4.10	4.30
9573	30	125	"	3.80	3.90
66576	60	230	"	11.90	12.80
66566-536	60	250	"	12.80	13.65
66561-71-31	100	250	"	21.00	22.85

Noark Meter Service & Entrance ACCO Without End Walls

Amps.	Fused For	Meter Service Test Type	Entrance Non Test
30A	Plug	9343 \$3.55	8343 \$3.30
30A	"	9353 4.00	8353 3.65
30A	Enc.	9363 4.85	8363 4.60
30A	"	9373 3.90	8373 3.90
60A	"	66366 14.95	76366 14.10
100A	"	66361 23.70	76361 22.85

Noark Universal Meter Service Switches

No.	Price	No.	Price
97123	\$3.75	97333	4.05
9723	5.00	9753 & 9793	5.65
972123	4.65	97333-97933	5.25

Noark Doall Without End Plate

Amps.	Fused For	Numbers	Price	Numbers	Price
30A	Plug	913123-911123	\$2.95	912333-914333	\$3.75
30A	Enclosed	921223	3.30	922333-924333	4.05
60A	"	921226	8.40	925336	8.90
100A	"	921221	14.95	925331	15.85

"TYPE C" "NUBLADE"—Quick Break **230 Volts Fusible**

Amps.	2 Pole	3 Pole	4 Pole	Price
30	8223	\$2.70	8233	\$4.30
60	8226	8.15	8236	10.00
100	8221	12.70	8231	15.40
200	8222	19.95	8232	26.30
400	8224	49.00	8234	67.15

230 Volts Solid Neutral

Amp.	2 Pole		3 Pole		4 Pole	
	Number	Price	Number	Price	Number	Price
30	All Solid Switching Neutral		8933	\$ 5.20	8943	\$10.00
60			8936	10.00	8946	14.50
100			8931	15.40	8941	28.15
200			8932	26.30	8942	45.40
400			8934	67.15	8944	90.75

Non-Fusible

Amps.	2 Pole	3 Pole	4 Pole	Price
30	8723	\$2.75	8733	\$4.10
60	8726	8.15	8736	8.65
100	8721	10.80	8731	12.25
200	8722	19.05	8732	22.70
400	8724	36.30	8734	47.20

Quick Break "TYPE C" "NUBLADE" 575 V.-AC

575Volts AC Fusible				575 Volts Non-Fusible				
Amp.	3 Pole		4 Pole		3 Pole		4 Pole	
30	8433	\$10.90	8443	\$18.15	8633	\$ 8.15	8643	\$10.90
60	8436	13.60	8446	19.95	8636	10.90	8646	18.15
100	8431	21.80	8441	36.30	8631	17.25	8641	27.25
200	8432	38.10	8442	51.75	8632	29.00	8642	42.65

ACCESSORIES FOR NOARK SWITCHES

Single Piece End Wall for 30 Amp. Switches	\$3.30
Shutter for 30	1.15
Universal End Wall No. 909103	.40
Blanking Side No. 906103-908203	.15
Trough—3 & 4" \$4.00—6" \$4.50—8" \$5.50—9" \$6.00	
Cabinet Fuse Block No. 902413	1.25

POLYPHASE

Meter Service and Entrance Switches

125-250 Volts Without End Walls

Main Entrance				Meter Service				
"ACCO" QUAD BREAK				"ACCO" QUAD BREAK		"SECO" QUAD BREAK		
Amp. Number	Price	Number	Fuses	Number	Price	Number	Fuses	
30	851233	4.65	77033	10.40	67033	11.05	67533	10.95
60	851236	11.60	77036	18.45	67036	20.20	67536	16.70
100	851231	19.05	77031	27.20	67031	30.00	67531	26.30

SOLID NEUTRAL SWITCHES

Noark Fusible—Quick Break

Amps.	Volts	3 Pole-2 Poles	4 Pole-3 Poles	5 Pole-4 Poles	Price
30	125-250	8133	\$3.20	8143	\$9.15
60	"	8136	9.10	8146	11.35
100	"	8131	14.50	8141	20.45
200	"	8132	22.70	8142	31.75
400	"	8134	63.55	8144	81.70

BULLDOG SWITCHES

Toggle Type—Quick Make & Break

125 Volt—2 Pole	One Blade	#92211 & T-82211	Price
125	2	Two	\$1.80
115	3	Three	4.55
125-250 Volts—3 Pole	2 Blades—Solid Neutral	#92311	8.20
125-250	3	Three	9.1311
250 Volts—2 Pole	One Blade	#92221	1.80
250	2	Two	5.45
230	3	Three	8.20
250	3	Three	7.75
575	AC 3	Three	12.75
575 Volts—Not Fusible	2 Pole	#93261	5.45
600	3	Three	7.25
600	3	Three	10.90
Motor Starting Switches	#81321—81321V		9.15

"TYPE C" NON-INTERLOCKING

Quick Make & Break

Single Throw	Fusible	Type "C"
Amps.	250 Volts DC—230 Volts AC	575 Volts AC
30 A. Base	50221S \$3.20	50321S \$5.15
30 A. End Plates	50221P 3.20	50321P 5.15
30 A. Slate Base	50221 5.40	50351 \$10.90
60 A.	50222 8.20	50352 13.60
100 A.	50223 12.70	50353 21.80
200 A.	50224 20.00	50354 38.10
400 A.	50225 49.00	50355 67.15

Switches

Single Throw Not Fusible Type "C"

	2 Pole	3 Pole	4 Pole
30 A. 2 Pole—250 Volt.....	53221S \$ 3.20	53321S \$ 4.00	53421S \$ 5.90
30-60 A. DC and 230 Volts.....	53222 8.15	53322 8.65	53422 13.60
100 A. AC 3 & 4 Pole.....	53223 10.90	53323 12.25	53423 20.90
200 A. 230 Volts.....	53224 19.00	53324 22.70	53424 38.10
400 A. AC Only.....	53225 36.30	53325 47.20	53425 63.50

Bulldog

"TYPE A"

575 Volts—AC Fusible						
30 Amp.....	10261	\$16.35	10351	\$19.25	10451	\$24.50
60 ".....	10262	17.25	10352	20.90	10452	26.30
100 ".....	10263	27.25	10353	31.75	10453	41.75
200 ".....	10264	42.65	10354	52.65	10454	63.50
400 ".....	10265	90.75	10355	99.00	10455	128.00

Not Fusible.....	600 V.-AC&DC	
30-60 Amp.....	13262	\$12.70
100 ".....	13263	20.40
200 ".....	13264	27.65
400 ".....	13265	66.25

Bulldog Quick Make & Break Fusible

Amps.	575 Volts AC Arc Chokers	
	3 Pole	
30 A.	30351	\$18.35
60 A.	30352	19.25
100 A.	30353	29.95
200 A.	30354	50.85
400 A.	30355	81.70

Bulldog

NOTE: For Bulldog Switches not listed deduct 10% from Bulldog Lists

Columbia, 30 Amp.

Description					3 Pole
Single Fused-Single Blade	125 Volt-Plug Fused				
Double " Double "	125 " " "	1931-2	\$2.1		
" " " "	" " " "	8931-2	2.4		
" " " "	250 " Cartridge Fused	323	4.0		
" " " "	250 " "	423	4.4		

Columbia

Series 30—Quick Break—250 Volts for Meter Trims

INDUSTRIAL SWITCHES

Columbia

Series 70 Type A Fusible

Series 71-500 Volts Fusible

Series 73-500 Volts Unfused

Series 72-600 Volts Fusib

Series 74-600 Volts Unf

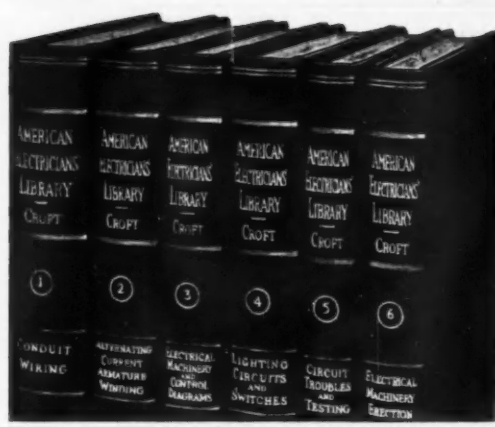
Series 20-250 Volt Fuse

Prices 23-250-500 Volts Unf

Columbia, 250 Volts

MAIN ENTRANCE SWITCHES

Single Phase and D. C.	MAIN ENTRANCE SWITCHES						Accessible Fuse	Price
Number	Amps.	Volts	Poles	Blades	Fuses	Neutral		
1450-1250	30	125	2	1	1 Plug	Solid	\$ 3.50	
1402-1202	30	125	2	2	2 "	None	3.95	
1403-1203	30	125-250	3	2	2 "	Solid	4.12	
2250	30	125	2	1	1 NEC		4.25	
2202	30	250	2	2	2 "	None	4.38	
2203	30	125-250	3	2	2 "	Solid	4.38	
1800	60	125	2	1	1 "		13.95	
1802	60	125 or 250	2	2	2 "	None	14.75	
1803	60	125-250	3	2	2 "	Solid	15.65	
1900	100	125	2	1	1 "		22.65	
1902	100	125 or 250	2	2	2 "	None	23.45	
1903	100	125-250	3	2	2 "	Solid	24.35	
4603	200	125-250	3	2	2 "		44.55	
4803	400	125-250	3	2	2 "		93.00	



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- 300 conduit-wiring diagrams
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- 52 two-phase armature winding diagrams
- 100 three-phase armature winding diagrams
- 570 electrical machinery and control wiring diagrams

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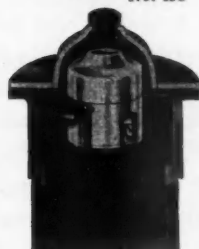
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"U.S." Rainbow Wires

ELECTRICAL CONTRACTORS

from Coast to Coast tell us that the "U.S." Rainbow Line is one of the biggest developments in Wire manufacture in many years. Here are a few of the hundreds of comments in our files:

From Sacramento, Cal.

"I like the smooth finish on your Rainbow Wires as it reduces the strain on the wires when pulling in, especially in warm weather."

From New York

"I used your Rainbow Line on several jobs I installed and they saved me a lot of time."

From St. Louis, Mo.

"In the Deaconess Hospital we saved at least 20% in time by using Rainbow Wires."

From New Jersey

"Your Rainbow Wires save many hours of labor and testing which means more profit for the contractor."

From Ft. Worth, Texas

"Rainbow Wires reduce the labor of connecting wires in construction work to about half the cost of the test and tag method. The greatest advantage of all is that years after the installation any wireman can tell at a glance just what circuit is faulty without disconnecting all circuits."



The Quality Mark
of the
World's Largest Producer
of Rubber

Save Time in Wiring

The Rainbow Line of "U.S." Paracore Wires and Cables is a complete line of colored Wires. Made in three grades, Code, Intermediate and 30%, from sizes 18 A.W.G. to 1,000,000 C.M.

Laboratory tests and actual installations prove the statements.

50% Easier Pulling Circuit Testing in 1/3 the time

"U.S." Rainbow Wires are ideally suited for wiring all types of large buildings where conduits are used, such as offices, apartments, hotels and hospitals. They are also used with a great saving, in alarm and signal systems and any place that identified circuits are necessary, such as wiring signs, etc. Samples, prices and full information will be gladly sent on request.

We will gladly serve you through your jobber

United States Rubber Company

1790 Broadway, New York City

BRANCHES IN EVERY INDUSTRIAL CENTER

For Perfect Splices:

"U.S." SPLICING COMPOUND "U.S." HOLDTITE FRICTION TAPE

Wadsworth Switches—Continued

MAIN ENTRANCE SWITCHES—Continued
POLYPHASE

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Accessible Fuses	Price
2230	30	250	3	3	3 NEC	None		\$10.40
1830	60	250	3	3	3			19.10
1930	100	250	3	3	3			28.70
4630	200	250	3	3	3			44.50
4830	400	250	3	3	3			101.00

METER SERVICE SWITCHES

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Accessible Fuses	Price
1451	30	125	2	1	1 Plug	Solid		\$ 3.80
1412-1212	30	125	2	2	2	None		4.25
1423-1223	30	125-250	3	2	2	Solid		4.75
2251	30	125	2	1	1 NEC			4.15
2212-2223	30	125 or 250	2 & 3	2	2	None & Solid		5.05
1851	60	125	2	1	1	Solid		14.75
1812-1842	60	125 or 250	2	2	2	None		15.65
1843	60	125-250	3	2	2	Solid		16.50
1951	100	125	2	1	1			24.35
1912-1942	100	125 or 250	2	2	2	None		24.35
1943	100	125-250	3	2	2	Solid		26.10
4643	200	125-250	3	2	2			51.75
4843	400	125-250	3	2	2			109.15

POLYPHASE

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Accessible Fuses	Price
2234	30	250	3	3	3 NEC	None		\$11.25
1834	60	250	3	3	3			20.85
1934	100	250	3	3	3			30.45
4634	200	250	3	3	3			60.65
4834	400	250	3	3	3			129.35

CHANNEL BANKING TYPE

All 30 Amp.	Volts	Poles	Blades	Fuses	Neutral	Acces. Fuses	Meter Service & Main Entrance	Price
125	2	1	1 Plug	Solid	1451T	\$4.25	1450T	\$ 4.05
125-250	3	2	2	None	1422T	5.20	1403T	4.55
125	2	2	2	None	1412T	4.70	1402T	4.35
125	2	1	1 NEC	Solid	2251T	4.55	2250T	4.60
250	2	2	2	None	2212T	5.55	2202T	5.25
125-250	3	2	2	Solid	2223T	5.55	2203T	5.25

METER SERVICE SWITCHES

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Sealed Fuses	Price
162	60	250	2	2	2 NEC	None		\$ 9.15
161	60	125-250	3	2	2	Solid		9.55
112	100	250	2	2	2	None		15.65
111	100	125-250	3	2	2	Solid		16.50

SERVICE FUSES DEAD WITH SWITCH OPEN

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Sealed Fuses	Price
38	30	125	2	1	1 Plug	Solid		\$ 2.65
238	30	125	2	1	1			4.00
X360	30	125	2	1	1			3.45
X362	30	125	2	1	1			4.45
272	30	125	2	2	2	None		4.30
271-292	30	125-250	3	2	2	Solid		4.05
2351	30	125	2	1	1 NEC			4.05
2312	30	250	2	2	2	None		4.35
2323	30	250	2	2	2	Solid		4.55
2051	60	125	2	1	1			12.60
2042	60	125 or 250	2	2	2	None		13.50
2043	60	125-250	3	2	2	Solid		14.35
2151	100	125	2	1	1	Solid		21.75
2142	100	125 or 250	2	2	2	None		21.75
2143	100	125-250	3	2	2	Solid		23.45
4743	200	125-250	3	2	2			44.45
4943	400	125-250	3	2	2	None		101.00

POLYPHASE

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Sealed Fuses	Price
2334	30	250	3	3	3 NEC	None		\$ 9.85
2034	60	250	3	3	3			17.40
2134	100	250	3	3	3			26.95
4734	200	250	3	3	3			49.75
4934	400	250	3	3	3			113.00

MAIN ENTRANCE SWITCHES

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Sealed Fuses	Price
172	60	250	2	2	2 NEC	None		\$ 9.15
171	60	125-250	3	2	2	Solid		9.30
102	100	250	2	2	2	None		15.65
110	100	125-250	3	2	2	Solid		16.50

POLYPHASE

Single Phase and D. C. Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Sealed Fuses	Price
2330	30	250	3	3	3 NEC	None		\$ 9.15
2030	60	250	3	3	3			15.60
2130	100	250	3	3	3			25.15

INDUSTRIAL TYPE SWITCHES

250 Volts	Amps.	Poles	Blades	Fuses	Acces. Fuses	Sealed Fuses	Quick Make & Break	Price
30	2	2	2	2	9532	\$13.65	8532	\$ 8.45
30	3	3	3	3	9533	15.50	8533	9.75
60	2	2	2	2	9562	14.65	8562	8.90
60	3	3	3	3	9563	18.55	8563	10.20
100	2	2	2	2	9512	25.00	8512	12.45
100	3	3	3	3	9513	28.80	8513	15.55

OUTDOOR METER SERVICE SWITCHES

30 Amp. 3 Pole Solid Neutral Outdoor or Weatherproof	Price
60	\$15.10
100	20.40
100	41.25

EXTRA END WALLS—SHUTTERS—TRIMS—ETC.

For 30 Amp. 125 Volt Switches	Flat	Type of Trim	Knock-Meter	Shut-ter	Shut-ter	Price
30	\$.30	Extended	\$.50	\$.30	\$.30	\$ 1.17
60	.50		.65	.50	.35	
60	.65		.83	.65	.45	.25
60	.75		.90	.75	.50	
100	.82		1.00	.82	.65	
100	.90		1.10	.90	.80	
200	1.00		1.15	1.00	.80	
200	1.10		1.25	1.10	.65	

Murray Switches

ENTRANCE SWITCHES

30 Amp. Number	Volts	Description	With End Walls 2 Pole 3 Pole
630	125	1 Blade—1 Plug Fuse S. N.	\$1.60
231-230	125-250	2 " —2	1.70 \$2.40
641-2-6	125	For 1 HP—250 V.—AC & DC Motors	1.80
643	230	3 Blades 3 Cartridge Fuses	3.20
647	125-250	2 " 2 " S. N.	2.50
830	125-250	2 " 2 " Sealed Fuses S. N.	4.00
831	125-250	2 " 2 Plug Sealed Fuses S. N.	2.25

ACCESSIBLE MAIN FUSE TYPE AA

					Without End Walls			
					Meter Test Type		Not-Meter Test Type	
Amps.	Poles	Fused for	Neutral	No.	Price	No.	Price	
30	2	1 Plug	Fused	755	\$3.25	754	\$3.05	
30	2	1 Cart.	"	738	4.20	740	3.60	
30	2	2 Plug	"	748	3.70	752	3.35	
30	2	2 Cart.	"	757	4.50	757	4.25	
30	3	2 Plug	Solid	756	4.20	753	3.70	
30	3	2 Cart.	"	742	4.45	758	4.25	
230	2	1 Plug	Fused	776	3.25	774	3.05	
230	3	2 Plug	Solid	775	4.20	779	3.70	
230	3	2 Cart.	"	777	4.45	778	4.25	
60	2	1 Cart.	Fused	766	14.20	773	15.05	
60	2	2 Cart.	"	764	15.05	762	14.20	
60	3	2 Cart.	Solid	765	15.95	763	15.05	
100	2	2 Cart.	Fused	709	23.85	708	22.10	
100	2	2 Cart.	"	718	23.85	716	23.00	
100	3	2 Cart.	Solid	719	25.60	717	23.85	

x—Made with cover to permit sealing fuses independent of main cover.

POLYPHASE ENTRANCE & SERVICE

Entrance Amps.	No.	Description	With End Walls 3 Wire 4 Wire
30	790-2	Three Legs Fused	\$11.00 \$11.60
60	760-9	Four Wire Solid Neutral	19.40 20.00
100	710-12	All 3 Pole 3 Phase	29.05 29.95
200	720-22		44.55 51.85
Service Amps.	No.	Description	With End Walls 3 Wire 4 Wire
30	791-3	Three Legs Fused	\$11.60 \$15.60
60	767-8	Four Wire Solid Neutral	20.75 23.80
100	711-14	All 3 Pole 3 Phase	30.80 33.25
200	721-23		51.85 60.75

"UNISAFIT"

(Universal Standardized Switches)

Number	Pole	Fuse	Neutral	Branches & Fusing	Price
235B	2	Single		2-2-Wire 2 Fuses	\$3.25
236	2			4-2 " 2 "	4.30
237	3	Two	Solid	1-3 " 2 "	3.75
237	3			1-2 " 2 "	3.75
237	3		Solid	2-2 " 2 "	3.75
238	3		Solid	4-2 " 4 "	4.85
238	2			2-2 " 4 "	4.85

METER SERVICE SWITCHES

Fuses & Blades Dead			Sealed Fuses		Without End Walls	
Amp.	Volts	Description	No.	Price	2 Pole	3 Pole
30	125	For Plug Fuses	232	\$ 2.20	233	\$ 3.35
60	250	For Cart. Fuses	364	12.85	365	13.75
60	250	For Cart. Fuses	368	12.75		
Fuses Alive						
30	125	For Plug Fuses	330-1	\$ 2.65	333	\$ 3.35
30	250	For Cart. Fuses	130	2.65	133	3.35
60	250	" " "	360	8.45	361-3	8.90
100	250	" " "	310	15.05	313-4	15.95

SEALABLE MAIN FUSES

3 Pole-3 Blades-For Cart. Fuses 250V.	30 Amp.	60 Amp.	Without End Walls 100 Amp.
	332 \$11.10	362 \$16.80	311 \$26.50

TYPE C-SWITCHES

Fusible Amps.	Description	2 Pole	3 Pole	4 Pole
30	All Cart. Fuse	No. Price	No. Price	No. Price
30	Solid Neutral 125-250	632 \$2.65	633 \$3.75	634 \$6.95
60		661 6.60	663 7.45	667 9.60
60	Solid Neutral 125-250	465 6.60	665 7.10	668 7.85
60		662 7.45	663B 7.45	663B 7.85
100		611 10.50	613 12.80	610 19.50
100	Solid Neutral 125-250	507 10.50	615 11.60	614 19.50
100		612 12.80	613B 13.50	
200		621 18.50	623 22.75	620 40.55
200	Solid Neutral 125-250	622 22.75	623B 23.70	

END WALLS, PLATES & TROUGHS & ADAPTORS

End Wall	30 Amp.	60 Amp.	100 Amp.
Shutter	\$.15	.25	.25
Closure Plate	.30	.30	.30
Trough Cover & Adapting Slide	.15	.15	.15
Trough 2" 3 & 4"			\$.40
" 5"			.45
" 6"			.50
" 7"			.55
" 8"			.60
" 9"			.65
" 10"			.75

Switches

Tape

Diamond E Switches

SMALL ENTRANCE SWITCHES, 30 AMPS.

Volts	For Fuses	Description	P-2 Pole	2 Pole	P-3 Pole	3 Pole
125	Plug	All Fused	P-25	\$1.65	P-35	\$2.75
125	Plug	Ground Neutral	C-2	1.65	C-35	2.25
250	Cartridge	All Fused	C-2	2.25	C-3	4.00
250	Cartridge	Ground Neutral	C-2	2.25	C-35	2.90

ALL-N-ONE SWITCHES

Live Front No.	Circuits	Double Fuse Price	Dead Front No.	Circuits	Single Fuse Price
A-2	2	\$3.45	AD-3	3	\$5.40
A-3	3	3.80	AD-4	4	5.55
A-5	5	4.15	AD-5	5	6.75
A-7	7	6.60	AD-6	6	7.95
A-9	9	6.95	AD-8	8	9.30
			AD-10	10	11.25

RANGE & WATER HEATER SWITCHES

60 Amp.—125 Volts

No. 501	No. 502	No. 503	No. 504	No. 505	No. 506	No. 507
\$9.90	\$15.25	\$23.60	\$26.75	\$20.25	\$8.90	\$13.90

MOTOR STARTING SWITCHES

MS-1	30 Amp. 3 Pole 220 Volts Quick Make & Break Toggle	\$6.00
C-3P	30 Amp. 3 Pole 250 Volts Not Toggle	7.10

SAFE LINE SERVICE SWITCHES

No. 904	Single Pole 4 Circuits with Transformer	\$7.85
	" " " " without Transformer	6.60

INDUSTRIAL TYPE

Quick Break—Single Throw—Fused Bottom

Amps.	No.	Price	250 Volts No.	Price	No.	Price
30	3022	\$5.40	3032	\$6.75	3042	\$7.90
60	6022	8.10	6032	9.00	6042	11.65
100	10022	11.65	10032	13.30	10042	24.10
200	20022	18.25	20032	24.10	20042	39.75
400	40022	44.85	40032	61.50	40042	87.20
600	60022	78.00	60032	91.30	60042	131.10

Amps.	No.	Price	500 Volts No.	Price	No.	Price
30	3025	\$9.00	3035	\$8.55	3045	\$12.45
60	6025	9.90	6035	10.80	6045	13.30
100	10025	13.30	10035	15.80	10045	26.60
200	20025	26.60	20035	30.00	20045	43.20
400	40025	68.00	40035	74.70	40045	116.20
600	60025	96.30	60035	103.00	60045	167.70

Amps.	No.	Price	600 Volts No.	Price	200 Amp.	Price
30	3026	\$15.30	3036	\$15.80	20026	\$38.60
60	6026		6036			

Not Fused—Quick Break

Amps.	Pole	Volts	Number	Price	Double Throw—No Fuse Number	Price
30	2	250 DC	3022N	\$5.00	3022DN	\$10.80
30	3	250 DC	3032N	6.30	3032DN	12.45
30	2	500 AC	3035N	8.65	3035DN	13.15
30	3	500 AC	3035N	8.10	3035DN	16.60
60	2	250-500	6025N	8.10	6025DN	13.15
60	3	250-500	6035N	8.55	6035DN	16.60
100	2	250-500	10025N	11.50	10025DN	24.90
100	3	250-500	10035N	11.25	10035DN	30.70
200	2	250-500	20025N	17.00	20025DN	34.85
200	3	250-500	20035N	20.75	20035DN	50.60
400	2	250-500	40025N	49.80	40025DN	99.60
400	3	250-500	40035N	58.00	40035DN	132.80
600	2	250-500	60025N	83.00	60025DN	141.00
600	3	250-500	60035N	99.60	60035DN	163.50

S-SUNDRIES

WOOD SCREWS

Flat Head

Size	Price Per Doz.	Size	Price Per Doz.	Size	Price Per Doz.
1/8"x6" & Smaller	\$.05	1 1/4"x12	\$.07	2 1/4"x10	\$.08
1/8"x8	.05	1 1/4"x6	.07	2 1/4"x12	.09
1/8"x6	.05	1 1/4"x8	.07	2 1/4"x6	.07
1/8"x8	.05	1 1/4"x10	.07	2 1/4"x8	.08
1/8"x8	.05	1 1/4"x12	.07	2 1/4"x10	.09
1"x6	.05	2"x6	.07	2 1/4"x12	.10
1"x8	.05	2"x8	.08	3"x8	.10
1"x10	.05	2"x10	.08	3"x10	.10
1 1/4"x6	.06	2"x12	.09	3"x12	.13
1 1/4"x8	.06	2 1/4"x6	.07	3"x14	.15
1 1/4"x10	.07	2 1/4"x8	.07		

NOTE—For Round Head Wood Screws Add 30% to above prices.

MACHINE SCREWS

Round or Flat Head

Size	Price per Dozen Iron	Price per Dozen Brass
1/8" x 1/4"	\$.05	\$.08
1/8" x 3/8"	.05	.09
1/8" x 1/2"	.05	.10
1/8" x 5/8"	.05	.12
1/8" x 3/4"	.05	.12
1/8" x 7/8"	.05	.12
1/8" x 1"	.05	.13
1/8" x 1 1/4"	.05	.15
10/24 x 1 1/4"	.06	.30

Electrical Contracting, January, 1931

MACHINE SCREWS—Concluded
Round or Flat Head

	Price per Dozen Iron	Price per Dozen Brass
10/24 x 1	\$.06	\$.22
10/24 x 1 1/4	.06	.28
10/24 x 1 1/2	.07	.39
1 1/4 x 20	.08	.36
1 1/4 x 20-1	.09	.40
1 1/4 x 20-1 1/4	.10	.45
1 1/4 x 20-1 1/2	.12	.50

NOTE—For Machine Screws with Fillister Head add 25% to above prices.

LAG SCREWS

Square Heads or Coac'h Screws

Length	2"	2 1/4"	3"	3 1/4"	4"	4 1/4"	5"	6"
1/4" Black	\$.03	\$.03	\$.04	\$.04	\$.04	\$.04	\$.04	\$.05
1/4" Black	.03	.04	.04	.04	.05	.05	.05	.06
1/4" Black	.04	.04	.05	.05	.06	.06	.07	.07
1/4" Black	.05	.05	.06	.07	.07	.07	.08	.09
1/4" Galv.	.03	.03	.04	.04	.04	.04	.04	.05
1/4" Galv.	.04	.04	.04	.04	.05	.05	.05	.06
1/4" Galv.	.06	.06	.07	.07	.08	.09	.09	.10

STRAPS—CLIPS OR CLAMPS

For Pipe

	Price Each	1"	1 1/4"
Without Screws			
Galvanized Straps, 2 Hole	\$.01	\$.01	\$.01
(Per Pound \$.20) No. Straps per Lb.	45	40	25
Light Steel Straps, 1 Hole	.04	.05	.06
Mail. Iron Clamps, 1 Hole	.06	.07	.08
P & S Conduit Clamps with Bolts			
Series 1400	.10	.14	.18

	Price Each	2"	2 1/4"	3"
Without Screws				
Galvanized Straps, 2 Hole	\$.02	\$.04	\$.05	\$.06
(Per Pound \$.20) No. Straps per Lb.	12	7	5	4
Light Steel Straps, 1 Hole	.04	.05	.06	.08
Mail. Iron Clamps, 1 Hole	.06	.07	.08	.11
P & S Conduit Clamps with Bolts—Series 1400	.25			

SOLDER

	40-50 Bar or Wire	50-50 Bar or Wire	Resin or Acid Core	Ribbon 30 70	Allen Alumi-Flux
Per Pound	\$.65	\$.70	\$.85	\$.75	\$3.00
Per Ounce	.05	.05	.08	.07	.15

SOLDER PASTE

Make	2 oz. Cans	2 oz. Tubes	4 oz. Cans	Half Pound Cans	One Pound Cans
Allen	\$.25	\$.40	\$.50	\$.70	\$1.25
Burnley	.20		.30	.40	.65
Crescent	.25		.40	.65	1.00
G. E.	.25			.90	1.50
Highland	.40			.90	1.65
Nokorods	.25			.90	1.50
Star	.25		.40	.65	1.00

SOLDERING SALTS

	1/4 Lb.	1 Lb.
Burnley	In cans each	\$.40
Yeager		.75
McGill Crescent	In Bottles each	.85
Nokorods	In cans each	1.00
Allen	In Bottles each	.75

SOLDER STICKS

	Price
Burnley	\$.25
Samson	.20
Allen	.40
Crescent	.25
GE	.25
Star	.25

FIXTURE STUDS

	1/2"	1"
Four Prong Fixture Studs Less Bolts	\$.10	\$.15
Bolts Extra	.01	.01
No Bolt Fixture Studs	.10	.15

STAPLES

	Price
Staples Insulated Nails Per Dozen	\$.08
Leather Nail Heads Per Dozen	.05
Milomite Insulated Nails Per Dozen	.05

TAPE

FRICTION TAPE

	Per Pound	Per Half Pound	Per 2 Ounce	Per 1 Ounce	Per Foot
Amazon Friction	\$.65	\$.35	\$.10	\$.05	\$.01
Adhere	.55	.30	.10	.05	.01
Bulldog	.70	.40	.10	.05	.01
Clifton	.65	.35	.10	.05	.01
Commodity	.60	.30	.10	.05	.01
Dutch Brand	.65	.35	.10	.05	.01
Everetich	.60	.30	.10	.05	.01
Eaco	.95	.50	.15	.10	.02
G. E.	.95	.50	.15	.10	.01

PL-23

Tape

FRICITION TAPE—Concluded

	Per Pound	Per Half Pound	Per 2 Ounce	Per 1 Ounce	Per Foot
Grimsaw	2.00	1.00	.25	.15	.03
Holdfast	1.00	.50	.15	.10	.01
Holdtite U. S.	.55	.30	.10	.05	.01
I X L	.75	.40	.10	.05	.01
Illinois	.55	.30	.10	.05	.01
Johns Manville Armature	1.75	.90	.20	.10	.02
" " Jomasco	1.00	.55	.15	.10	.02
" " White	1.35	.70	.20	.10	.02
" " No. 3 Now No. 5	.55	.30	.10	.05	.01
" " No. 6 " 40	.50	.25	.10	.05	.01
Jaxon	.80	.30	.10	.05	.01
Leader	.70	.35	.10	.05	.01
Manson	1.25	.65	.20	.10	.02
Magnet	.75	.40	.10	.05	.01
O. K.	.60	.30	.10	.05	.01
P & H.	1.00	.50	.15	.10	.02
Paragon	1.65	.85	.20	.10	.02
Service	.90	.45	.15	.10	.02
Stanpat	.55	.30	.10	.05	.01
Sticka	.50	.25	.10	.05	.01
Security	.45	.25	.10	.05	.01
Victor	.55	.30	.10	.05	.01
Vim Gray	1.10	.60	.15	.10	.02

RUBBER TAPE

	Rubber	\$0.95	\$1.50	\$1.15	\$1.10	\$0.4
Amazon		1.20	.60	.15	.10	.04
Alexall		1.00	.50	.15	.10	.04
Alpha		.65	.35	.10	.05	.03
Brooklyn		.65	.35	.10	.05	.03
Clifton		.65	.35	.10	.05	.03
Dutch Brand		.65	.35	.10	.05	.03
Eleco		.60	.30	.10	.05	.03
G. E.		.55	.30	.10	.05	.03
Graybar Victor		.55	.30	.10	.05	.03
Holdfast		1.00	.50	.15	.10	.04
Imperial		.60	.30	.10	.05	.03
Illinois		.60	.30	.10	.05	.03
Okonite		1.50	.80	.20	.10	.04
Pars		.75	.40	.10	.05	.03
Pittsburgh		.55	.30	.10	.05	.03
Relio U. S.		.50	.25	.10	.05	.03
Security		.55	.30	.10	.05	.03
U. S. Rubber		.65	.35	.10	.05	.03
Twin Tape Rubber & Friction		.75	.40	.10	.05	.03
USCO Westinghouse		.90	.50	.15	.10	.04

COUCH TELEPHONES

VESTIBULE TYPE

No. 74 Armored Cord Receiver Type	\$25.00
No. 74A Swing Arm Receiver Type	37.30
No. 74C Cordless Loud Speaker Type	30.75
Above prices are for telephones complete but do not include for any call buttons.	
Add for buttons—Janitor Calling Buttons if fitted.	\$.95
Add for Each Suite Calling Button	.95

SUITE TELEPHONES

Series 2809 to 2849 or 1909 to 49	Page 22 Bulletin No. 89 S. H. Couch Co.
Number of Buttons	0 1 2 3 4
Price Ea. Surface or Flush	\$11.40 \$11.40 \$12.45 \$13.60 \$14.60

TELEPHONE CABLES

Number of Conductors	Braided Type "B"	Lead Covered Type "L"
	Number Price per Foot	Number Price per Foot
8	B-8 \$1.14	L-8 \$1.18
12	B-12 1.15	L-12 .21
16	B-16 1.15	L-16 .27
21	B-21 2.22	L-21 .05
25	B-25 2.24	L-25 .32
31	B-31 2.27	L-31 .39
37	B-37 .30	L-37 .44

TIME SWITCHES

ACE TIME SWITCHES—SELF WOUND

All AC or DC	Sgl. or Dble. Pole—100 to 130 Volts—Up to 60 Cycle
On and Off Types	No. 35 \$45.00 No. E4 \$47.50 No. E6 \$50.00
Two Circuit Types	All Dble. Pole—20 Amp.—125 Volts Each Circuit
	A2, B2, C2, E2, G2 \$45.00

GENERAL ELECTRIC TIME SWITCHES

Type	Cat No.	115 V. Price	230 V. Price
T-8C1	34x979 to 984	\$22.00	\$23.00
T-8C3	34x985 to 990	23.00	24.00
T-8C4	34x991 to 996	22.00	23.00
TYPE T-9—Dble. Pole			
20 Amp. In or Outdoor Service			
60 and 50 Cycle..	10x637-40	40.00	41.00
40 and 25 " "	10x641-44	40.00	41.00
Extra for Cutouts		4.00	4.00

HARTFORD TIME SWITCHES

Type	B Double Pole	10 Amp.	20 Amp.	35 Amp.	50 Amp.
C & D Double Pole		39.00	42.00	47.00	52.00
G Apt. Hall Light Control D. P.		38.00		60.00	

HOROLECTRIC TIME SWITCHES

60 Amp. D. P. Eight Day Time Switch and Box	\$24.00
60 " " Automatic Electric Time Switch Motor and Box	32.00
Eight Day Time Motor	12.00
Automatic Electric Time Motor	20.00

RELIANCE & RACINE SWITCHES

Racine Type	10 Amp.	30 Amp.	50 Amp.
Reliance Type 1R-2R	\$19.50	\$23.00	\$36.00
Reliance Type 10-20-30-50	28.00	30.00	32.00
Reliance Type 15 Triple Pole		32.00	
Apartment House Types A-B-C-D-E-F-G	30.00		

Transformers

SANGAMO TIME SWITCHES

All 20 Amp. 115 V.—15 Amp. 230 V.	A. C.	D. C.	D. C.
T or TC 1 Single Pole Single Throw	115-230V \$40.00	115 Volt \$45.00	230 Volt \$47.50
T " TC 1 " Double " "	42.50	47.50	50.00
T " TC 2 Double " Single " "	45.00	50.00	52.50
T " TC 2 " " Double " "	47.50	52.50	55.00

SAUTER TIME SWITCHES

No.	Amps.	Poles	Description	Price
All 115-230 Volt A. C. & D. C. Single Throw.				
101	2	1	Clock operated, key wound 40 day clocks	\$52.00
111	10	1	" " " 40 " "	56.00
121	15	2	" " " 40 " "	60.00
201	2	1	Self winding	74.00
211	10	1	" " " "	80.00
221	10	2	" " " "	85.00
321	25	2	Motor operated self winding clocks	105.00
401	40	2	" " " "	110.00
441	100	2	Motor operated Oil Break self winding clocks	190.00
431	200	2	" " " "	250.00
461	300	2	" " " "	280.00

TORK TIME SWITCHES OR CLOCKS

Single Pole	15 Amp. 125 Volt	Indoor \$115H \$20.00	Outdoor \$215H \$27.50	Switchboard \$015H \$17.50
Double " 30 " 250 "		\$130H 25.00	\$230H 32.50	\$030H 22.50
Single " Double Throw		\$166H 25.00	\$266H 32.50	\$066H 22.50
Contactor and Clock Combination				
\$76062H-60 Amp. 2 Pole AC \$50.00		\$75062H-60 Amp. 2 Pole DC	\$70.00	
\$76102H-100 " " AC 75.00		\$75102H-100 " " DC	125.00	

ZENITH TIME SWITCHES

Model #110—8 Day	10 Amp.	20 Amp.	30 Amp.	60 Amp.	100 Amp.	200 Amp.
Electric Wound—AC	\$20.00	\$23.00	\$25.00			
—DC	40.00					
Astronomic Dial—AC	79.00					
—DC	84.00					
Remote Con. Swths.—AC		16.50	\$22.50	\$42.50	\$75.00	
—DC		23.50	38.00	55.00	93.00	

TRANSFORMERS

BELL & TOY TRANSFORMERS

Name	Style	Watt	Secondary Volts	50 to 133 Cycle No.	Price	25 to 40 Cycle No.	Price
Steel Clad Bell	25	Single	96	\$1.25		96	\$1.45
Porcelain Bell	25	Three	86T	1.55		86T	1.75
Out. Box Bell	25	Single	86ER	1.55		86ER	1.75
ED-WARDS	Heavy Duty	50	8-16-24	88	4.25	88	4.65
" "	" "	75	" "	89	6.40	89	7.00
" "	" "	100	" "	90	7.40	90	8.15
" "	Toy	50	3 to 18	870	3.50	870	4.20
" "	" "	75	3 to 24	871	5.85	871	7.00
" "	" "	100	2 to 30	872	8.75	872	10.50
G. E.	Bell Residence	12	18 Volt	2332	1.00	192340	1.45
" "	Box Type	12	" "	2458	1.40	2490	1.75
" "	Heavy Duty	50	8-16-24	2333	4.85	2339	7.00
" "	" "	100	10-20-30	2334	6.95	2340	11.20

Wizard	25	10 Volt	230-101	1.00	230-102	1.15
Nacode	25	10 Volt	230-111	1.40	230-112	1.65
Tri-Volt	25	6 to 18V.	230-121	1.40	230-122	1.65
Porcelain			230-131	1.40		
Little Jeff Toy	50	5 1/2-13	535-101	3.65	535-102	4.30
Midwest Toy	75	5 1/2-22	535-121	4.45	535-122	5.80
Model 2 Toy	100	5 1/2-25	535-131	6.75	535-132	8.40
Model 3 Toy	150	1-30	535-141	8.65		
Heavy Duty A	50	6 to 20	231-101	5.10	231-102	7.25
" B	75	6 to 20	231-111	7.70	231-112	10.30
" C	100	6 to 24	231-171	8.90	231-172	10.40
" E	250	8 to 24	231-141	21.00	231-142	26.00

Blue Bell	10	8 Volt	6166	1.00		
Tri-Volt	20	6 to 16	6163	1.40		
Box Type	10	8 Volt	7166	1.40		
Porcelain Case	10	8 Volt	4166	1.40		
LARK "Black Bell"—H. D.	50	6-14-20 V.	816-50	5.00		
" "	75	6-14-20 V.	816-75	7.50		
" "	100	6-12-18-24	916-100	8.90		
"Box Bell" in Box	10	8 Volt	9166	2.30		

Mold. Single	25	10 Volts	221	1.40		
Mold. 3 Circuit	25	6 to 18V.	222	1.55		
Steel Sgl. Cir.	25	10 Volts	225	1.25	235	1.85
Steel 3 Circuit	25	6 to 18V.	226	1.40		
Cov. Ty's Sgl. Cir.	25	10 Volts	227	1.40	237	1.55
Cov. Type 3 Cir.	25	6 to 18V.	228	1.55		

Porcelain Clad	25	Single	200D1	\$1.65	201G1	\$2.10
" "	25	6-9-15	203D1	2.10	204G1	2.55
Steel	15	Single	205S	1.25	206SG	1.40
" "	15	6-9-15	207S	1.45	208SG	1.75
Heavy Duty Porc.	50	6-12-18	209HDI	6.45	210HE1	7.20
" "	100	8-16-24	212EHD	7.75	213HEH	10.30
Steel Clad "A"	50	6-12-18	300A	6.20	301A	6.75
" " "B"	100	6-12-18-24	302B	9.25	303B	10.75
" " "C"	200	6-12-18-24	304C	17.50	305C	20.65
" " "E"	300	6-12-18-24	306E	21.45	307E	25.75
" " "F"	500	6-12-18-24	308F	28.90	309F	36.00

STAN-LEY	TB H'vy Duty	50	8-16-24	501	4.25	502	4.75
" "	" "	75	8-16-24	751	6.40	752	7.00
PATTER-	TB H'vy Duty	100	8-16-24	1001	7.40	1002	8.15
SON	TB H'vy Duty	150	8-16-24	1501	9.10	1502	10.00

NOTE: For 220 Volt Transformers add 20% to above prices.

WIRES

NEW CODE RUBBER COVERED WIRES

Special Price on No. 14 S.B. Wire

Special Price on No. 12 S.B. wire				Per Foot
In less than Coil Lots.....				\$.01½
In Coil Lots.....				.01
Other Sizes			Price Per Foot	
	No. 12	No. 10	No. 8	No. 6
Fixture Wire Light.....	\$.01	\$.01½		
" " Heavy.....	.01½	.01½		
Solid Single Braid.....	.01	.01½		See Above
" Double.....	.01½	.01½		\$.01½
Stranded Sgle. Braid.....	.01½	.01½		.01½
Dble.....				.01½
Duplex Single Braid.....				.03
Double.....				.04
Other Sizes		Price Per Foot		
	No. 12	No. 10	No. 8	No. 6
Fixture Wire Light.....				
" " Heavy.....				
Solid Single Braid.....	\$.01½	\$.02	.03	\$.04½
" Double.....	.02	.02½	.03½	.05
Stranded Sgle. Braid.....	.02	.02½	.03½	.05
Dble.....	.02½	.02½	.04	.05½
Duplex Single Braid.....	.04	.05	.07	.09
Double.....	.06	.06	.08	.10

LARGER SIZES DOUBLE BRAID STRANDED

Size	Price Per Foot	Size	Price Per Foot
No. 6 D. B.	\$.04	No. 0	\$0.17
No. 6 D. B.	5 1/2	No. 00 . . . . .	.19
No. 6 D. B. . . . .	.07	No. 000 . . . . .	.22
No. 3 D. B. . . . .	.09	No. 0000 . . . . .	.29
No. 2 D. B. . . . .	.10	250,000. . . . .	.35
No. 1 D. B. . . . .	.14		

CIRCULAR MILL CABLE

Size	Price Per Foot	Size	Price Per Foot
300,000 C. M.	\$0.40	700,000 C. M.	\$0.88
350,000 C. M.	.46	750,000 C. M.	1.00
400,000 C. M.	.51	800,000 C. M.	1.00
450,000 C. M.	.57	900,000 C. M.	1.10
500,000 C. M.	.63	1,000,000 C. M.	1.25
600,000 C. M.	.77		

Additions to Code Wire for 25% (Intermediate Grade) and 30% Wire.

Sizes	For Intermediate or 25% Wire	For 30% Wire
From No. 14 to No. 1.....	8%	10%
From No. 1/0 to 4/0.....	3%	6%
From 250,000 to 400,000 CM.....	2%	5%
From 500,000 to 1,000,000 CM.....	1 1/2%	3%

WEATHERPROOF WIRE

Triple Braid

	No. 18	No. 16	No. 14	No. 12	No. 10	No. 8	No. 6
Per Pound Solid.....	\$.66	\$.60	\$.56	\$.53	\$.48	\$.47	\$.45
" Stranded.....					.55	.50	.50
Per Foot Solid.....	.01	.01½	.02	.02½	.03	.04	
" Stranded.....	.01½	.01½	.02½	.03	.03½	.04½	
Number Feet Per Pound.....	70	80	40	30	20	13	

EXTRAS—	For slow burning W. P. Wire—Per Pound Extra.....	\$.01
	For Twisted Pair W. P. Wire—Per Pound Extra.....	.02
	For Double Braid W. P. Wire—Per Pound Extra.....	.01
	For Medium Hard Drawn—Per Pound Extra.....	.00½

For Armored Cables See Page PL-9.

ANNUNCIATOR—TELEPHONE WIRE, ETC.

		Description	No. 18	No. 10
	Solid	Light $\frac{1}{4}$ Per Foot.....	\$.01	\$.01
Fixture	"	Heavy $\frac{1}{4}$ " ".....	.01	.01
Wire	Stranded	Light $\frac{1}{4}$ " ".....	.01	.01
	"	Heavy $\frac{1}{4}$ " ".....	.01	.01

Description	Annunciator Wire			
	No. 18	No. 16	No. 14	No. 12
Single				
Per Pound.....	\$.80	\$.58	\$.56	.....
Per Foot.....	.00%	.00%	.01	.....
Twisted or Duplex				
Per Pound.....	.06	.04	.02	.....
Per Foot.....	.01	.01%	.03	.....

Office & Damp Proof Wire				
Single	Per Pound.....	.70	.68	.64
	Per Foot.....	.01	.01 1/2	.02
Twisted or Duplex	Per Pound.....	.76	.71	.68
	Per Foot.....	.03	.03	.04

	Doubleton	per similar		
Single Stranded Black or White Per Foot	.02	.03	.03½	\$.04
Single Stranded Colored Per Foot	.03	.03½	.04½	.05½
Single Glazed Cotton Per Foot	.03	.03½	.04½	.05½
Single Artificial Silk Per Foot	.04	.04	.05	....
Duplex Glazed Cotton Per Foot	.06	.07	..	....
Duplex Artificial Silk Per Foot	.07	.08	.09	....
Twisted Pair Glazed Cotton Per Foot	.07	.08	.09	....
Twisted Pair Artificial Silk Per Foot	.07	.08	.09	....

Description	Asbestos Range Wire					
	No. 18	No. 16	No. 14	No. 12	No. 10	No. 8
Asbestos Range Wire or Switch Board Wire Single Solid—Per Foot.....	\$.07	.08	.09	.10	.12	.14

TELEPHONE WIRES

Covered Inside & Outside Size, Ins.		Description	Price Per Ft.
#10	3/32"	Inside 2 Cond Twisted Pr.	\$.04
19	3/32"	" 3 " "	".04
22	5/64"	" 2 " " * Flameproof.	".04
18	7/64"	" Outside 2 " " * Sat. Brd. Bridle W.	".03
16	4/32"	" 2 " " "	".03
14	3/32"	" 2 " " "	".05
14	5/32"	" 2 " " * Copperweld-Drop W.	".05

For price of single conductor use one-half of 2 Cond. price.

GALVANIZED TELEPHONE WIRE

	Size	No. 4	No. 6	No. 8	No. 10	No. 12	No. 14
EBB Extra Best	Per Pound...	\$.12	\$.12	\$.12	\$.12	\$.13	\$.14
B. B. Best Best	" " ...	.11	.11	.11	.11	.12	.13
Steel	" " ...	.10	.10	.10	.10	.11	.12
Weight Per 1000 Feet.....		153	112	74	49	32	19
Weight Per Mile.....		811	590	390	258	170	99

WIRE, MAGNET

Price Per Pound

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Plain Enamel- ed	Enamel- ed Single Cotton	Enamel- ed Double Cotton
8	\$.63	\$.66	.....	.....	\$.63	\$.67	\$.70
10	.65	.68	.....	.....	.64	.69	.72
12	.67	.72	.....	.....	.65	.72	.76
14	.70	.74	.....	.....	.68	.74	.80
16	.72	.76	\$ 1.02	\$ 1.26	.68	.76	.82
18	.75	.83	1.11	1.40	.72	.80	.88
20	.83	.93	1.24	1.60	.74	.90	1.00
22	.86	1.04	1.33	1.65	.76	.96	1.10
24	1.00	1.22	1.46	1.83	.80	1.05	1.30
26	1.10	1.37	1.60	2.04	.83	1.24	1.50
28	1.28	1.70	2.00	2.44	.90	1.40	1.80
30	1.60	1.86	2.15	3.30	.95	1.76	2.00
32	1.78	2.43	2.80	4.64	1.02	1.90	2.62
34	2.22	3.15	3.68	6.53	1.13	2.52	3.42
36	2.88	4.08	8.22	8.53	1.30	3.24	4.80
38	5.06	7.60	8.36	13.90	1.54	6.55	.....
40					1.86		

NOTE: For odd sizes use half the increase of next larger size

For $\frac{1}{4}$ lb. lots use one third of above prices.
For one ounce lots use one tenth of above prices.

For one ounce lots use one tenth of above prices.

	Price Per 100 Feet	Plain	Enamel-	Enamel-
--	--------------------	-------	---------	---------

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Enamel-ed Cotton	Single-ed Cotton	Double-ed Cotton
8	\$3.60	\$4.00	.....	.....	\$3.35	\$4.00	\$4.30
10	2.40	2.40	.....	.....	2.00	2.40	2.20
12	1.50	1.60	.....	.....	1.36	1.60	1.60
14	1.30	1.25	.....	.....	1.28	1.55	1.57
16	.75	.80	\$0.90	\$1.00	.72	.75	.95
18	.50	.55	.56	.65	.40	.52	.65
20	.36	.40	.60	.52	.32	.40	.52
22	.26	.32	.35	.36	.24	.32	.36
24	.20	.25	.25	.30	.16	.24	.30
26	.12	.14	.16	.20	.11	.14	.16
28	.09	.12	.12	.16	.09	.12	.12
30	.09	.10	.10	.12	.09	.10	.12
32	.09	.10	.10	.11	.09	.10	.11
34	.09	.10	.10	.11	.09	.10	.11
36	.09	.10	.10	.11	.09	.10	.11
38	.09	.10	.10	.11	.09	.10	.11
40	.....	.....	.....	.....	.09	.10	.11

Note: Prices per 100 feet are higher than per pound rate to cover cost of measuring and should be used only for small lot sales.

LEAD & RUBBER COVERED WIRE AND CABLE

Size		Single Conductor		Duplex		Three (3)	
		Solid	Stranded	Solid	Stranded	Solid	Stranded
No. 14	Price Per Foot	\$.04	\$.05	\$.07	\$.08	\$.15	\$.16
No. 12	" " "	.05	.06	.10	.12	.17	.19
No. 10	" " "	.07	.08	.12	.14	.20	.21
No. 8	" " "	.09	.10	.15	.17	.23	.25
No. 6	" " "	.12	.14	.19	.24	.36	.50
No. 4	" " "	.....	.17	.....	.30	.....	.60
No. 3	" " "	.....	.20	.....	.34	.....	.63
No. 2	" " "	.....	.22	.....	.37	.....	.68
No. 1	" " "	.....	.27	.....	.55	.....	.95
No. 1/0	" " "	.....	.34	.....	.64	.....	1.10
No. 2/0	" " "	.....	.38	.....	.75	.....	1.20
No. 3/0	" " "	.....	.44	.....	.85	.....	1.43
No. 4/0	" " "	.....	.51	.....	1.05	.....	1.70
250,000 C. M.	Cable	.....	.62	.....		
300,000 C. M.	"	.....	.70	.....		
350,000 C. M.	"	.....	.77	.....		
400,000 C. M.	"	.....	.85	.....		
500,000 C. M.	"	.....	1.00	.....		
600,000 C. M.	"	.....	1.30	.....		
700,000 C. M.	Cable	.....	1.45	.....		
750,000 C. M.	"	.....	1.50	.....		
800,000 C. M.	"	.....	1.57	.....		
900,000 C. M.	"	.....	1.75	.....		
1,000,000 C. M.	"	.....	1.90	.....		

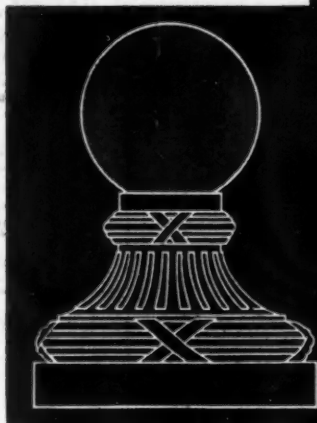
NOTE: Above prices are based on following quantities:
No. 14 to No. 8 Less than 100 ft. No. 6 and larger less than 50 ft.

PARKWAY CABLES

Size	Steel Taped		Non-Metallic	
	2 Cond.	3 Cond.	2 Cond.	3 Cond.
No. 14 per ft. ....	.25	.69	.18	.23
No. 12 <small>01 02</small> .....	.37	.69	.20	.26
No. 10 <small>01 02</small> .....	.43	.65	.22	.30
No. 8 <small>01 02</small> .....	.47	.72	.26	.38
No. 6 <small>01 02</small> .....	.55	.71	.37	.57
No. 4 <small>01 02</small> .....	.65	1.05	.50	.72
No. 2 <small>01 02</small>	1.78	1.25	.66	.93
No. 1 <small>01 02</small>	1.00	1.50	.80	1.20
No. 1 <small>01 02</small> .....	.90	1.60	.93	1.47

NOTE: Prices on Parkway Cables are based on Trade costs in quantities of less than 100 Feet. Larger quantities take lower prices. Consult your jobber.

Design No. 1668



TO HAVE GOOD LIGHTING YOU MUST HAVE GOOD FIXTURES

BRACKETS, NEWELS and STANDARDS produced by Union Metal are each designed to fill a particular lighting need, to provide the exact type of lighting required. At the same time, the fixtures present a pleasing appearance in harmony with the structure on which they are used.

The wide selection of distinctive designs makes available a type and size and style for every purpose.

The quarter century of experience behind Union Metal in the creation of outdoor lighting equipment has resulted in an enviable reputation for fixtures which combine beauty with years of trouble-free service.

For complete information on stock or special designs in cast iron or bronze, address

THE UNION METAL MANUFACTURING CO.
GENERAL OFFICES AND FACTORY • CANTON, OHIO
SALES OFFICES: New York, Chicago, Boston, Los Angeles
San Francisco, Seattle, Dallas, Atlanta

UNION METAL
EXTERIOR
LIGHTING FIXTURES

Design
No. 739

*mistake in pagination,
no material lacking.*



AT SOUTHERN CALIFORNIA CHAPTER CONVENTION:—Shown above, left to right, are F. J. Connolly, executive secretary, southern chapter; Glenn Arbogast, Newbery Electric Corp., Los Angeles, president; Lou Wetzel, Kuster-Wetzel Electric Co., Long Beach, executive committee-man; C. A. Rowley, Pasadena, vice-chairman, and R. W. Abright, Abright Electric Co., Long Beach, former city electrician and chairman, entertainment committee, who attended the convention of the southern chapter, California Electragists, held at Long Beach.

(Continued from page 30)

tractors and representatives of manufacturers of electrical equipment from all parts of the province were present at this meeting. One of the important discussions was the unanimous adoption of the Ontario apprenticeship act by the members.

Kansas Forms State Association

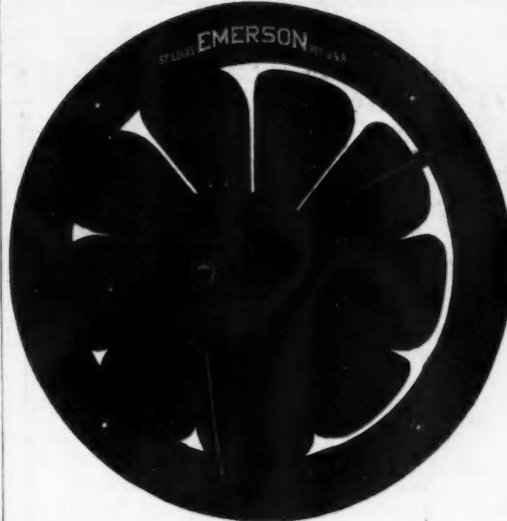
Approximately sixty electrical contractors gathered at Wichita on December 8 to form a Kansas State Electrical Contractors' Association. Rex Ramsay of Ramsay-King Electrical Co., Hutchinson, was elected president and C. R. Shrake of Topeka, secretary-treasurer.

The first important work of the new association is the formation of a new state Code which it is proposed to present to the legislature.

New Code for San Buena Ventura

An electrical code of the city of San Buena Ventura, Calif., has been adopted providing for the issuance of electrical permits, regulating the installation of wiring and creating the office of city electrical inspector.

The ordinance requires regular re-inspection in all buildings with the exception of occupied residences. Adequacy is established in dwellings by allowing definite wattages for different types of outlets and limiting the wattage on the circuit. In some



Make an Extra Profit

On your wiring jobs by suggesting the need of an exhaust or ventilating fan. The world is waiting for better ventilation. Why not get your share of this big ready market?

A Line of Exhaust Fans

12 to 36 inches

Quiet, Powerful, Completely Dependable

Extremely sturdy but light construction. Arms welded to supporting ring—that provides rigidity and protects against vibration. Blades designed for maximum efficiency. Dead air spots have been almost completely eliminated. Remember, too, that the heart of these exhaust fans is an Emerson Motor especially designed for fan service. These famous motors include the desirable features of cool operation, dust-resisting construction, sure-starting and wool-packed bearings that require only infrequent re-lubrication.

*May we send Bulletin 3519-A
containing full data?*

THE EMERSON ELECTRIC MFG. COMPANY
2018 Washington Ave., Saint Louis
806 W. Washington Blvd., Chicago
155 Sixth Avenue, New York City

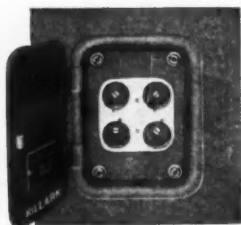
EMERSON

EXHAUST FANS

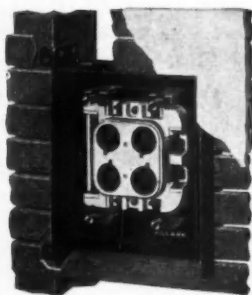
Made by the makers of Emerson 1/30 to 2 h. p. motors

A Modern Fuse Box for the Modern Home

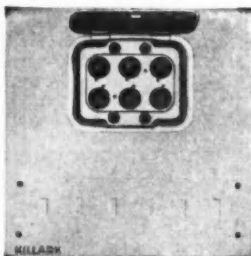
KILLARK RESIDENCE PANELS



Four circuit, flush type Killark Residence Panel. Notice the screws which hold the trim are not visible when the door is closed.



Showing method of attaching Killark Residence Panels to the studding. Notice how cut lathing is supported in a channel slot and how plaster ground is fixed automatically. No bridging is required.

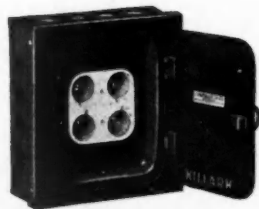


The Killark switch-type residence panel for use where it is necessary to have a separate switch for each circuit. This panel is furnished in the flush type only.

Designed by a contractor of eighteen years' experience, Killark Residence Panels embody a number of details and improvements that take the trouble out of residence panel installations. They appeal not only to the contractor, but to his customer, the home owner, as well. Their simplicity, perfect alignment and completely dead-front face make them the ideal fuse box for residence service.

Easy to Install

Perfect alignment is secured by the exclusive Killark mounting bracket that nails directly to the studding, automatically plumbing the panel and fixing the correct plaster ground. The Killark lath support firmly holds the unsupported end of the lathing in place. The Killark balancing and adjusting device permits quick adjustment of the block to meet any irregularities of the finished plaster.



The Killark surface-type residence panel for use on unplastered walls and on the plastered walls of finished buildings. This cut shows a four circuit panel, finished in black enamel.

Write for price sheets and details

Killark Electric Manufacturing Co.
3940 Easton Ave. St. Louis, Mo.

rooms having an area more than 200 sq. ft., the one watt per sq. ft. rule is applied. A minimum of 2 watts per sq. ft. is required in store display rooms, salesrooms, offices, workrooms, etc.

Incorporated in the code are some very useful tables including: The number of wires allowed in various types of boxes; demand factors for space heaters; amperes for one k.w. at various power factors and voltages; the weakening of joists by slotting and boring; conduit sizes for lead covered cable, and convertible wire and conduit tables.

7-Hour Day for Tacoma Wiremen

The Tacoma (Wash.) Electrical Contractors & Dealers Association, comprising twenty firms, have adopted a seven-hour day in order to give more work to electrical workers, and relieve the unemployment situation. This change from the eight-hour day went into effect on November 17.

Vancouver Adopts Resale Price Book

The Vancouver Electric Association has adopted a suggested resale price book completely covering all of the material and appliances handled by its members. The book, which is in loose-leaf form, was compiled by J. C. Reston of the Reston Electric Co., Vancouver, B. C. It gives both a suggested resale price and also



INDUSTRIAL SPECIALIST: — Edward R. Hamilton, Wilmington, Del., does all plant work for the local gas company, services a large chain of gas stations and other work of this class. In addition to this he recently had a booth for the appliances in the household exhibit held here.

First

EXHAUSTIVE RESEARCH

by General Electric scientists and engineers

Then

EFFICIENT PRODUCTION

in General Electric and associated factories

NOW

ECONOMICAL DISTRIBUTION

of a complete line of electric apparatus and supplies, from more than 80 wholesale warehouses, to every community in the United States.



GENERAL  ELECTRIC
SUPPLY CORPORATION

Couch

TELEPHONES

ESTABLISHED 1894



Better 'Phones

for

**RESIDENCES
OFFICES
FACTORIES
SCHOOLS
APARTMENTS
PUBLIC BUILDINGS**

The Couch line of Intercom Phones includes wall sets, flush and surface mounted, with or without Handfones. Desk sets are made as illustrated or with cradle and Handfone. A wide variety of Intercom Phones are listed in Bulletin No. 90. Have you got your copy?



S. H. COUCH COMPANY, Inc.
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SAN FRANCISCO, LOS ANGELES, SEATTLE
Sierra Equipment Corp.

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Franke, Levasseur & Co., Ltd.

TORONTO:
Canadian Telephone & Supplies Co., Ltd.

CHICAGO:
309 W. Jackson Blvd.

ST. LOUIS:
917A Pine St.

ASHEVILLE:
P. O. Box 1892

MINNEAPOLIS:
1017 Lumber Exchange

BIRMINGHAM:
Electrical Devices Co.
1139 1st Ave. So.

QUALITY THAT SPEAKS FOR ITSELF



GOES AFTER RANGE BUSINESS:
—W. F. Bohnet, Lansing, Mich., does a variety of work in wiring, yet has developed a sound merchandising system along with construction. He has been unusually successful in both the sale and installation of electric ranges by the simple method of getting out quickly after each prospect he discovers.

the net cost price for each item. This enables the contractor to check his invoices from the jobber and also take off net cost prices when required for contracts.

The cost price is given in code so that the book may be opened before a customer. The average mark-up is 50 percent although consideration has been given the local market, thus varying this mark-up on some items.

Brooklyn Contractors Hold First United Meeting

Nearly 1,000 contractors attended the first united group meeting of the Kings County Electrical Contractors Association held December 4, and approximately 100 applications for membership were received. The purpose of the meeting, as announced by Chairman Louis D. Kennedy, was for the promotion of good-will and better understanding between the contractors, wholesalers, manufacturers and public utility.

Speakers were J. C. Forsythe, Supervising Engineer, N. Y. Fire Underwriters; C. L. Harold, General Sales Agent, Brooklyn Edison Co.; Harry Woods, N. Y. Deputy Commissioner of water supply, gas and electricity; Marcus Einhorn, Lighting Fixture Merchandising Association, and Jack Korn, Vice President

of the Eastern Electrical Wholesaler Jobbers Association.

Mr. Forsythe pointed out that old house wiring is mostly completed and that new work is not coming in fast enough to employ the available electricians. For this reason the energetic campaign of the underwriters for the removal of defective wiring comes at an opportune time. But the contractor, he reminded them, knows defective wiring when he sees it as well as does the inspector. It is, therefore, his duty to warn owners of hazardous wiring and to sell safety and convenience.

At present most contracting jobs are the result of inquiries from the owners but a vast market is available for the contractors who will make the most of their opportunities.

Harry Woods, of the city department, then pleaded with the contractors to "play ball" with the city and warned them that the man who takes short cuts is sure to find himself in trouble eventually.

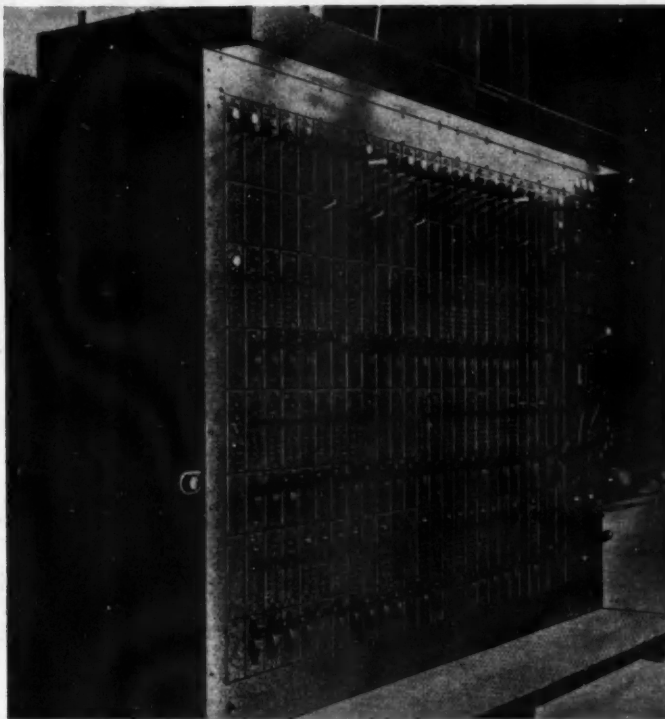
Jack Korn, first vice president of the Eastern Electrical Wholesalers Association talked of the jobber's desire to aid the contractor, but he spoke as an individual, and not as an officer of the organization. However, he promised that the problems of the contractor would be taken up for discussion.

Louis Kalischer, although not listed as one of the speakers of the evening found time from his numerous activi-



ONE MAN, ONE CAR, AND ONE SET OF TOOLS FOR REWIRING:
—The Uschold Electric Shop, Buffalo, N. Y., does not go in for new house wiring. However they have a fine business on old work, remodeling, fixing outlets, etc., and the man in the picture, Jerome Uschold, gives his undivided attention to this sort of work. In other words, he is a department within himself, and both himself, his car and his tools are in readiness at all times to get out on the job in a hurry.

The Largest Portable Stage Switchboard in the World



Built by

WURDACK

for the New Orleans Auditorium

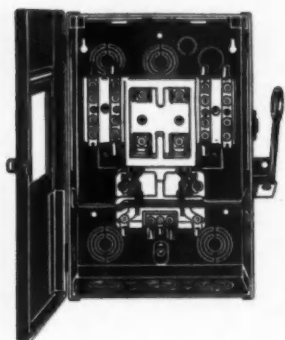
The switchboard installation in the magnificent New Orleans Auditorium represents an outstanding example of Wurdack engineering and craftsmanship. The huge portable stage switchboard shown above brings to its disappearing stage a flexibility of lighting control and a command of effects second to none in the country. It is equipped with 80 control units and 100 dimmers, and has a current handling capacity of 700 kilowatts. Twenty flexible rubber covered cables, containing a total of 300 wires, connect it to the terminal cabinet. Despite its weight of over three tons, it can be readily moved to any position on the stage. May we send you our folder which fully describes this Wurdack installation?

WM WURDACK
ELECTRIC MFG. CO.

444 CLAYTON AVE., ST. LOUIS, MO.

See Sweet's catalogue for nearest branch office.

WADSWORTH



ACCESSIBLE FUSE SAFETY SWITCHES

Catalog No. 1843
Accessible Fuse
60 Ampere Size

This Wadsworth Accessible Fuse Switch meets the continuous forward movement for

"Safe"

"Adequate Wiring"

Meter Service Switch Installations.

A switch that meets the requirements necessary for a Safe Service switch installation and the adequate wiring residence program.

Ample and simple wiring facilities and knock-outs that are easily and cleanly removed, assist contractors in making a neat, complete and satisfactory installation.

You can safely recommend the use of Wadsworth Accessible Fuse Safety Switches to your customers.

Write for Bulletin No. 21 for complete information.

The WADSWORTH ELECTRIC MFG. CO. INC.
Corington, Kentucky.

There is a Wadsworth Switch for Every Installation



WIRES FIVE BROADCAST STATIONS:—On the left is W. T. Bettendorf of the Bettendorf Electric Company, Buffalo, N. Y., with R. E. Cunningham, who handles the accounting and collections of the company. Bettendorf has been making a specialty of electrical installations in radio broadcast stations of which he has already done five. This firm has also been very successful in laying out fine lighting jobs on miniature golf courses.

ties to attend the meeting. He was immediately drafted into service and gave a ten-minute talk in which he denied that the contractor was a poor business man. He was, Mr. Kalischer asserted, a hard hitter and a plugger who followed through despite unfavorable conditions in the industry. There are, he informed his audience, 3,000 buildings in New York with violations of electrical work and a re-survey is badly needed at this time. Rules regarding violations should be strictly enforced and disconnections of service follow where violations are disregarded. Mr. Kalischer gave his hearty approval to the eight Kings County Electrical Contractors Groups as it gives the locals in various sections of Brooklyn an opportunity to discuss their problems and present the most important ones for consideration and action by the parent body.

Eastern New England Inspectors Meet

The Eastern New England Chapter of the Eastern Section, International Association of Electrical Inspectors, met recently in Boston, Mass.

A. Penn Denton, engineer-director, armored conductor and metallic flexible conduit section of NEMA, gave an extremely interesting talk on the entire subject of "armored cable" in-

A BETTER CONDUIT—

● IT HAS NOT BEEN by chance that Youngstown-Buckeye Conduit has become the most widely used of all rigid steel conduits. Thousands of electrical contractors know from practical experience that Youngstown-Buckeye Conduit is installed with less lost motion and waste—because, although tough and rigid, it bends so easily, will not open at the welds, has deep, clean-cut threads, and can be easily cut and re-threaded on the job.

Youngstown-Buckeye galvanized conduit is coated on the outside with high-grade zinc by the electro-galvanic process, which deposits zinc on the surface and in the pores of the steel. It is thoroughly coated on the inside and outside with transparent enamel, baked on. On the inside is baked a rust-resistant black enamel over the transparent coating. Thus it has two coats inside and out, is rust-proof and acid resistant.

Youngstown-Buckeye enamelled conduit is protected, both inside and out, with a special black rust-proof enamel, thoroughly baked on the walls. This enamel is highly resistant to acids.

It is because Youngstown-Buckeye has actually proved itself to be a better conduit in many of the installations that it has become the choice of the vast majority of electrical contractors, engineers and architects throughout the country. Try it on your next job—you will find it handled by leading jobbers everywhere.

THE YOUNGSTOWN SHEET AND TUBE COMPANY

One of the oldest manufacturers of copper-steel, under the well-known and established trade name "Copperoid"
General Offices—YOUNGSTOWN, OHIO

DISTRICT SALES OFFICES:

ATLANTA—Healey Bldg.

BOSTON—

Chamber of Commerce Bldg.

BUFFALO—Liberty Bank Bldg.

CHICAGO—Conway Bldg.

CINCINNATI—Union Trust Bldg.

CLEVELAND—Term'l Tower Bldg.

DALLAS—Magnolia Bldg.

DENVER—Continental Oil Bldg.

DETROIT—Fisher Bldg.

KANSAS CITY, MO.—

Commerce Bldg.

LOS ANGELES—3000 Santa Fe Ave.

MEMPHIS—42 Keel Ave.

MINNEAPOLIS—Andrus Bldg.

NEW ORLEANS—Hibernia Bldg.

NEW YORK—30 Church St.

Hudson Terminal Bldg.

PHILADELPHIA—

Franklin Trust Bldg.

PITTSBURGH—Oliver Bldg.

SAN FRANCISCO—

35 New Montgomery St.

SEATTLE—Central Bldg.

ST. LOUIS—

Louderman Building

YOUNGSTOWN—Stambaugh Bldg.

LONDON REPRESENTATIVE—The Youngstown Steel Products Co., Dashwood House, Old Broad St., London, E. C. Eng.

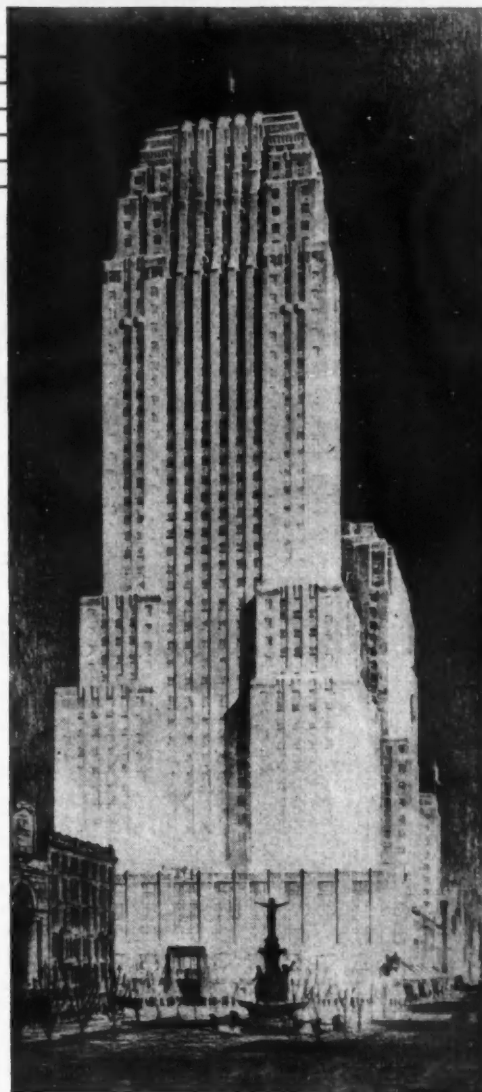
YOUNGSTOWN

GALVANIZED SHEETS PROTECT

::

::

SAVE WITH STEEL



The Carew Tower, Cincinnati, Ohio—another outstanding building in which Youngstown-Buckeye Conduit was used.

Architect—WALTER W. AHLISLAGER—Chicago
Associate Architect—DELANO & ALDRICH—New York

General Contractor—STARRETT BROS., INC.—New York and Chicago
Electrical Contractor—HATFIELD ELECTRIC CO.—Cincinnati



Cut Your Bending Hours to Minutes



Contractors, now you can submit lower bids on every job that requires the bending of conduit. You can reduce your bending time from hours to minutes, by using the Greenlee Hydraulic Conduit Bender. This tool bends conduit horizontally so that any length of pipe can be put in the bender without running against the floor, as would happen if the tool worked vertically.

Bending is accomplished by hydraulic pressure, forcing a shoe against the conduit. The piece being bent is held by two rotating support castings arranged to accommodate different sizes of conduit. One of the big features of the Greenlee Bender is its portability. The machine is light for the work it does and can easily be carried from place to place.

The price of Greenlee Benders is very reasonable. Two sizes are built to handle different classes of work. With this arrangement the contractor who does not work with the larger sizes of conduit is spared the expense of buying a machine, part of whose capacity he has no use for. The No. 770 bends 1¼, 1½, 2, 2½ and 3-inch conduit and exerts a pressure of at least 25 tons. The No. 775 bends 2½, 3, 3½, 4 and 4½-inch conduit and exerts a pressure of at least 40 tons.

GREENLEE TOOL CO.
Rockford, Illinois

----- Mail this Coupon Today -----

GREENLEE TOOL CO., ROCKFORD, ILL.

We are interested in lowering our bending costs. Send at once complete information, prices and discounts on your Hydraulic Benders.

Name

Address

City..... State.....

My Jobber is.....

cluding methods of manufacture and particular reference to specifications of ABC type of cable.

This chapter has been recently formed and is becoming very active. The officers are: William P. Briggs of New Bedford, chairman; Eugene N. Davis, Brookline; W. E. Mason, Arlington; G. B. Lydstone, Everett and Carl Smith, Haverhill, vice-chairmen. William H. Greenlaw, Beverly, is secretary-treasurer.

6-Hour Day to Relieve Unemployment in St. Louis

The Electrical Employers' Association of St. Louis, Mo. announces the adoption of a 6-hour day for electrical contractors in order to relieve unemployment in the electrical field. Reducing the working day from eight to six hours will furnish employment to approximately 160 electrical workers who are now out of jobs. The present hourly rates of pay, however, will be maintained.

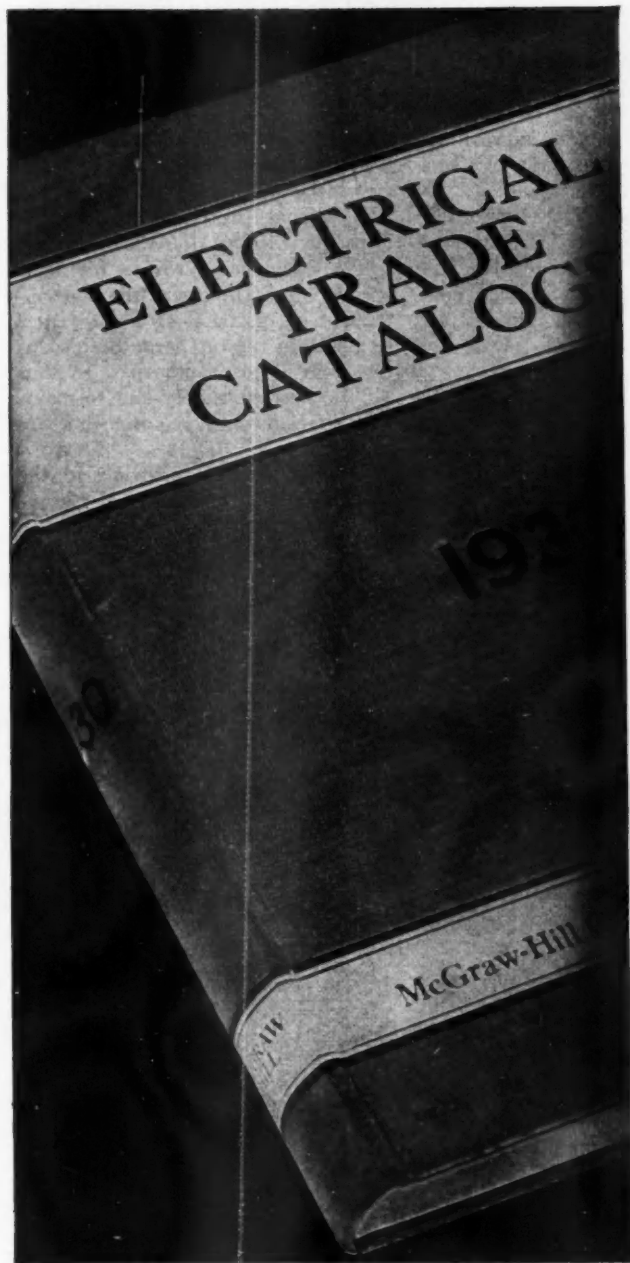
Reinspection for Atlanta

The electric light committee of the Atlanta, Ga. city council has authorized city electrician Pat H. Hendricks, in conjunction with the fire department, to rigidly inspect all electric wiring installations in Atlanta. Many installations of electric wiring by unauthorized and inexperienced persons have been reported.



WORKED 33 MONTHS ON HOUSE WIRING JOB:—These men represent the Ochiltree Electric Co., Pittsburgh, Pa. On the left is L. M. Riddle, lighting specialist, with F. C. Barthel, who handles the construction. This company is highly departmentalized, doing a large merchandising business on refrigeration, radio, and appliances. In the wiring end they have completed an exceptional job of wiring a country home and many additional buildings on a large estate. They continued making additions for two years and nine months and the final amount of the wiring job was \$25,000.

Make This Handy Collection of Catalogs *WORK* for You !



Manufacturers of Electrical Supplies and Equipment send you their catalogs every year in **ELECTRICAL TRADE CATALOGS** to supply you with handy data on their products. The data included in this binder will

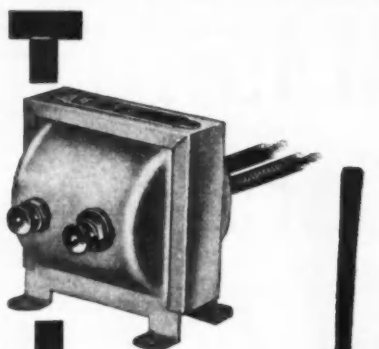
- Help you estimate.
- Help you get orders and place orders
- Aid you in carrying out architects' plans and specifications.

And the **PRODUCTS INDEX**, in the back of this collection of catalogs, will help you locate the sources of supply of the hundreds of products you are interested in.

Turn to this modern catalog-file the next time you need information on supplies and equipment. Make it work for you every day. You will find it indispensable in your work — if you haven't discovered this already.

**McGraw-Hill
CATALOG AND DIRECTORY
COMPANY, INC.**

NEW YORK, N. Y.



HERE IT IS!

After months of designing, innumerable experiments and scores of rigid tests, we are pleased to further announce the perfection and production of the new Liberty.

TROUBLE FREE Bell Ringing TRANSFORMER

Embodied in it is that rare combination of superior quality and reasonable price for which the Liberty products are so well known.

Let us send you complete details. Get the coupon below off to us at once.



DOOR BELLS and BUZZERS

A complete line of door bells, buzzers and duplex combinations to meet every requirement. These bells and buzzers are fully guaranteed and are recommended by contractors everywhere.

Single and Double Coil

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"Over a Million Liberty Bells
Now in Use"

CLIP AND MAIL TODAY

THE LIBERTY BELL MFG. CO.
Minerva, Ohio.

Gentlemen: Kindly send me bulletins and price lists of your complete line of Bell and Buzzer combination, Bells and Buzzers. Also your new Trouble Free Transformer.

NAME.....

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and as a result, the electrical ordinances will be stringently enforced first in the downtown district and later throughout the city.

Ohio Contractors Form New Organization

On November 21 and 22 sixty-seven contractor-dealers from the state of Ohio met at the Chittendon Hotel, Columbus, Ohio, and formed the Ohio Electrical Contractors-Dealers' Association. The board of trustees elected at this meeting were C. Leshner, Dayton, president; H. T. Uhl, Akron, vice president; C. F. Hammer, Toledo, secretary-treasurer; A. B. Weinfeld, Columbus; Carl S. Zink, Cincinnati; Harold L. Mayer, Canton; J. B. Conklin, Struthers; H. Brennan, Newark and W. F. Walter, Portsmouth. A Cleveland member is to be appointed.

The following activities were outlined and approved by the members in attendance: Public relations; wholesalers relations; service company relations; credit bureau and services; exchange of ideas and standardization of equipment.

L. E. Mayer, president, Association of Electragists, Int., spoke on the subject of "Federal Trade Practice Rules, their Interpretation and their Enforcement." Mr. Mayer also explained in full the activities of the Association of Electragists.

H. B. Kirkland, director, Uniform Ordinances, the Society for Electrical Development, also addressed the meeting.

A dinner was served in the banquet room of the Hotel Chittendon and A. E. DeFrance, president of the Toledo Chapter, A.E.I. read an address by L. W. Davis upon the "Value of a State Organization."

1931 Meeting of N.F.P.A. Electrical Committee

The 1931 annual meeting of the electrical committee of the National Fire Protection Association will be held in February as provided by the procedure.

Reservation of the Westinghouse Lighting Institute's auditorium has been made for Tuesday, Wednesday and Thursday, February 17, 18 and 19 respectively.

New Atlanta Ordinance

A new book giving the ordinances and installation rules, and a copy of the National Electrical Code has been issued by the city of Atlanta, Ga.

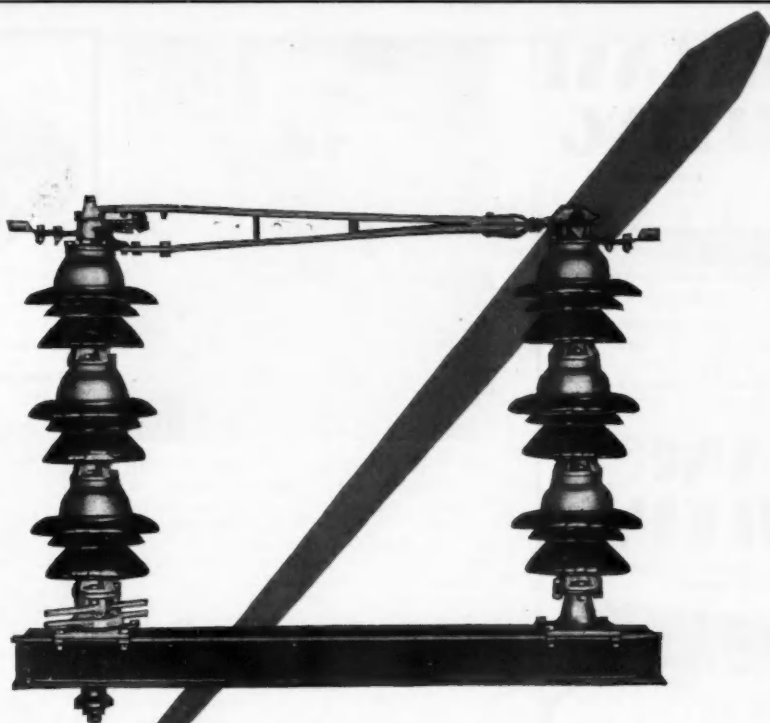
The ordinances provide for reinspection and empowers the superintendent of electrical affairs to enter premises in the discharge of his duties. He is also authorized to shut off the current supply and to maintain shut-off until requirements are complied with.

The ordinance also provides for the licensing and examination of electrical contractors and a \$100.00 license fee.

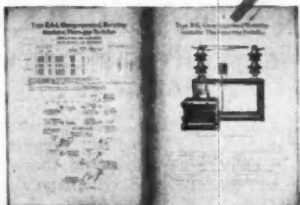
The special rules governing electrical installations, which take precedence over the National Electrical Code, among other things, provide



GROUP OF CONTRACTORS AND ASSOCIATION OFFICERS WHO MET AT COLUMBUS TO FORM THE NEW OHIO ASSOCIATION.



RELY on RK switches for economy



For detailed information, refer
to Catalog GEA-1145



JOIN US IN THE GENERAL
ELECTRIC PROGRAM, BROAD-
CAST EVERY SATURDAY
EVENING ON A NATION-
WIDE N.B.C. NETWORK

THESE group-operated, outdoor, side-break switches are economical, not only in first cost but also in installation and maintenance. A simple construction which utilizes only two insulator stacks per pole, and a mechanism which requires a minimum of parts are reasons for that low first cost.

Among outstanding structural features are full-floating, self-aligning, spring-pressure line contacts; interchangeable,

assembled, insulator units; an all-copper current-carrying path; and a main bearing of the ball type, which takes thrust from any direction.

These switches are applicable to isolating service, and are available in ratings of 92 to 161 kv., 600 amperes, single-break, for vertical, upright, or underhung mounting.

Type RK switches are designed and built to fulfill the requirements of discriminating engineers.

500-46

GENERAL ELECTRIC

SALES AND ENGINEERING SERVICE IN PRINCIPAL CITIES

SHOWCASE LIGHTING

For T-6½ Intermediate base lamp.



No. 80

No. 80 Showcase unit is 8½" long, 1¾" high and 1¾" wide—Standard finish statuary bronze plate.

BANK LIGHTING

For two standard lamps to 25 watt.



No. 1012

Cashier cage reflector No. 1012 is 18" long, 3¾" high and 4¾" wide, with twin brass pull chain socket and diffusing glass bottom. Standard finish, statuary bronze spray.

PICTURE LIGHTING



No. 720

No. 720 picture reflector is 9" long for one standard base tubular lamp. Furnished wired complete with 9 feet silk cord and plug.

INTERIOR ELECTRIC SIGNS

No. 2000



Interior electric signs are available in single and double face types with a variety of glass faces and mounting arrangements. For more data on the Day-Brite line ask your jobber for a Day-Brite catalog or write directly to us for one.

DAY-BRITE COMPANY
3825 Laclede Ave. Saint Louis



MOTOR SPECIALIST HAS GOOD WORKING SYSTEM:—George A. Trombley Electric Co., Saginaw, Mich., does large work, but has a complete motor department and shop. One interesting phase of the system is having separate inside and outside crews on motor work. In other words, one crew is trained to run the feeders into the building and a different crew hooks up the motors.

for adequacy. A minimum of two circuits is required in all dwellings, flats and apartments having six or more outlets. Wall switches are required for all kitchen ceiling outlets and all ballroom ceiling and bracket outlets.

In stores a maximum of four outlets per circuit is allowed. In stores and public buildings a minimum of one ceiling outlet of 200 watts or its equivalent in wattage is required for each 100 sq. ft. of floor space. In industrial ceiling outlets are required equivalent to a minimum of one watt per sq. ft.

Philadelphia Association Elects Board of Governors

The Electrical Association of Philadelphia, Pa., has elected the following members to the Board of Governors for 1931:

The contractors division elected M. E. Arnold, M. E. Arnold & Co. and Louis W. Moxey, Jr., Keller-Pike Co.

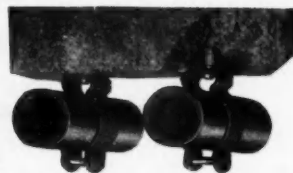
The lighting fixture division elected C. L. Sherman, Jr., Biddle Gaumer Co. and Alfred Volker, Jr., Voight Co.

The wholesalers division elected A. L. Hallstrom, Graybar Electric Co., Inc., and Frank Elliott, Elliott Lewis Elec. Co., Inc.

The manufacturers division elected J. W. Alexander, the Arrow-Hart & Hegeman Electric Co., William A. MacAvoy, Frank Adam Electric Co.,



Hanger with Porcelain Bushing



Hanger without Porcelain Bushing



Only One Bolt or Screw

MINERALLAC CONDUIT and CABLE HANGERS

Unequaled for all open wiring with either cable or conduit. One screw or bolt and they're in quickly and permanently. Made of high grade spring steel easy to handle, safe to install with no chance for breakage. All sizes from ¾" to 2½", inclusive.

★ JIFFY CLIP

Light and strong, requires only one screw to make a neat, secure and compact job. Accommodates pipe from ⅛" to 1¼".

MINERALLAC ELECTRIC CO.
25 N. Peoria St. Chicago, Ill.





FUNDAMENTALS FIRST

Success in electrical contracting depends not so much upon the volume of business you do or the type of customers you serve, but upon your NET PROFITS.

JUST COMMON SENSE

The growing use of the NATIONAL ELECTRICAL RESALE PRICE SERVICE by alert and profit-minded contractors in every community offers convincing proof that there is an increasing interest in more profitable business rather than just more business.

PROFIT INSURANCE

If you have been dissatisfied with your profits here is something that will make money for you every day in the year—Profits this year depend upon preparations made now.

INVESTIGATE—IT WILL PAY YOU

If you are not already using this Service we will gladly send full particulars, without obligation, of course. Since it is supplied only to those actively engaged in the electrical business please attach the coupon below to your letterhead.

Henderson-Hazel Corporation,
5005 Euclid Ave.,
Cleveland, Ohio.

Gentlemen:

Without obligation please send us your booklet describing the NATIONAL ELECTRICAL RESALE PRICE SERVICE.

Name.....

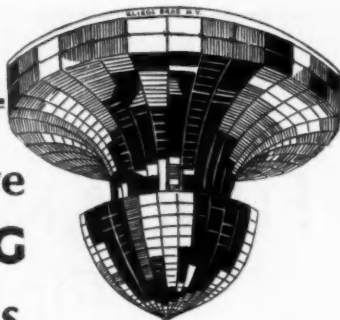
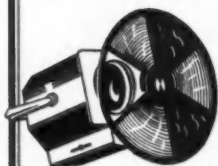
Address.....

City or Town.....

State.....

EC-1-31

For novel & decorative LIGHTING effects



NEW opportunities for profit are offered by the increasing demand for novelty and originality in decorative and display lighting—especially in feature lighting of dances, banquets, bazaars, public functions, and the like.

You will be amazed at the many simple and inexpensive ways the most attractive lighting effects can be procured with Kliegl devices—a lifetime experience in stage illumination has made us skilled in the production of the unusual.

Here pictured is a crystal shower, a rotating mirrored device, suspended from the ceiling, which reflects sparkling, colorful, moving spots of light with a most delightful and entrancing effect. The spotlight, also shown, is equipped with a motor driven color wheel.

This is but a single suggestion of the many specialties we can furnish. Give us an idea of what you wish to accomplish—we will help you attain your end, and can supply the necessary equipment.

KLIEGL BROS

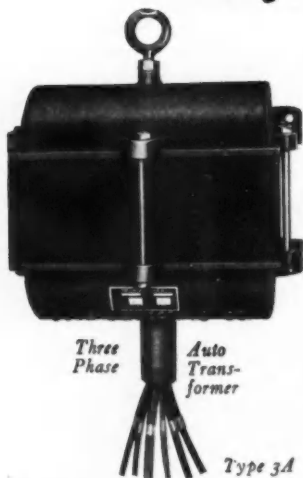
UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.

321 WEST 50th STREET
NEW YORK, N.Y.

SURGES TRANSFORMERS

AIR-COOLED

Easy to Install



We maintain a staff of transformer experts to help you. Consult them (without charge) anytime.

Your Customers Prefer Them for Their Economy of Operation

Surges Air-cooled Transformers are ideal for lighting installations. They meet the requirements of the National Board of Fire Underwriters for indoor installation and do not require fireproof vaults.

Every contractor should learn more about the opportunity SURGES AIR-COOLED TRANSFORMERS offer for increased sales to industrial customers. Practically every industrial plant and large building is a prospect. WRITE TODAY FOR MORE INFORMATION.

SURGES ELECTRIC COMPANY

MILWAUKEE, WIS.

Special Air-Cooled Transformers to fill specific needs. Send us your requirements.

D. J. O'Donnell, Sweeten & O'Donnell, Ltd., and C. K. West, General Electric Co.

William F. James and E. E. Hedler continue on the board.

Assess Wiremen 10 percent for Unemployment Relief

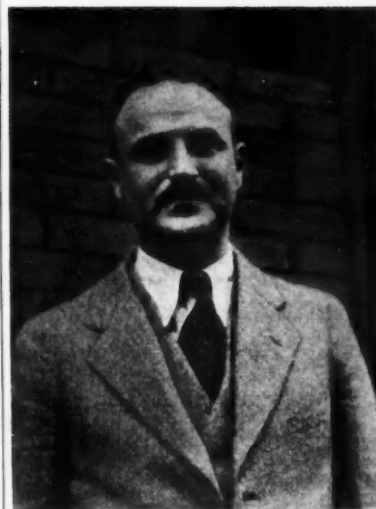
In order to relieve the unemployment situation among wiremen in the city of Chicago all employed members of Local 134 are being assessed 10 percent of their wages. This assessment is paid into a relief committee. The men voted to do this in preference to the suggestion of the Electrical Contractors' Association that construction men be alternated in employment.

It is expected that the relief committee will be in a position to pay approximately \$9.00 a week for single men who apply for relief and \$18.00 to married men with families.

At the present time over 60 percent of the wiremen in the city of Chicago are employed. This compares with 85 to 90 percent in normal times.

Columbus League Promotes Adequate Wiring

The Electric League of Columbus, Ohio, has published three bulletins as follows: One covering range wiring for the home; another illustrating electrical installations adequate for



FLOODLIGHTS LARGE PACKING PLANT:—Lou Gordon, Gordon Electric Co., Albert Lea, Minn., has been a contractor for 11 years, with many buildings and schools to his credit. He recently completed the wiring of a packing plant, on which he also sold and installed floodlights.

future demands in the home, which has a plan showing house service and range installation, and a third, which is a guide to planning the electrical wiring of a residence or an apartment. This latter bulletin describes in detail the complete wiring installation necessary for a home.

Head Memphis Chamber of Commerce

The two leaders of the electrical industry of Memphis, W. R. Herstein and Joseph A. Fowler, have been elected president and vice-president, respectively, of the Memphis Chamber of Commerce for the year 1931.

Mr. Herstein, who is vice-president of the Armstrong Electric & Mfg.



W. R. HERSTEIN JOS. A. FOWLER

Corp., was formerly head of the Wesco Supply Co. and one of the leaders in the National Electrical Wholesalers Association.

Joe Fowler, who is a past president of the Association of Electragists, has been chairman of the Auditorium Commission and executive committeeman of the Chamber's Convention Bureau since its establishment.

It is curious to know that both Mr. Herstein and Mr. Fowler have been recipients of the McGraw award for outstanding achievement in their respective industries.

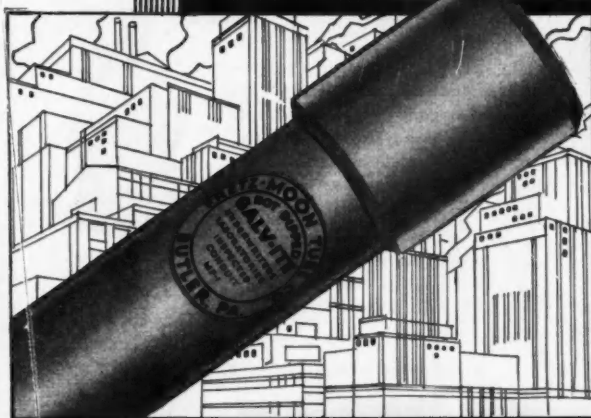
This is probably the first time that two electrical men have been elected to the administration of a local Chamber of Commerce in a city the size of Memphis.

Graveline Resigns as Secretary of Denver Contractors

George Graveline has resigned as secretary and director of the Denver Electrical Contractors' Association. During his term of office, Mr. Graveline devoted much time and effort in

A NEW CONDUIT

SUITABLE FOR THE
HIGHEST TYPE
BUILDINGS



HOT DIP GALVITE



TO meet the demand for a conduit of the highest quality,—a conduit suitable for use in the finest buildings, Fretz-Moon Tube Company, Inc., has developed Hot Dip Galvite. It is heavily galvanized both inside and outside by the hot dip process and finished over the galvanized coating inside with a heavy baked-on black enamel. This insures maximum protection against internal and external corrosion and provides a smooth raceway.

Without question, Hot Dip Galvite is the conduit for use where corrosive conditions are severe and where a conduit of the highest quality must be used.

FRETZ-MOON TUBE CO., INC.
BUTLER, PENNSYLVANIA




RUGGED

RALCO

RECEPTACLES





Type BN



Type HN



Type CN



Type HF

The watertight Circuit Breaking Receptacles and Plugs illustrated, have self-aligning floating contacts, arc resisting insulators, self-closing covers, and separate terminals for protective ground.

Very easy to wire, made in 2, 3 and 4-Pole, 30 and 60 Ampere. Approved for use on both 250-Volt D.C. and 600-Volt A.C. Circuits.

Ask for Bulletin 102

Ralco Manufacturing Company
Designers & Manufacturers
125 No. Albany Ave., : Chicago, Ill.

starting the Denver Electrical Survey Bureau.

Harvey M. Olmstead was appointed to serve as secretary to fill Mr. Graveline's unexpired term.

E. D. McCarthy

Edmond D. McCarthy, president of McCarthy Bros. and Ford of Buffalo, N. Y., died suddenly of heart failure on December 13, at the age of 58. He was for many years one of the most prominent electrical contractors and jobbers in the state having been in the electrical business for more than 35 years. He founded the firm of McCarthy Bros. and Ford in 1892 and was also secretary of Beals, McCarthy & Rogers, Inc., wholesale steel and hardware merchants of Buffalo.

Mr. McCarthy was one of the charter members of the National Electrical Contractors Association now the Association of Electragists and took part in its organization



E. D. MCCARTHY

meeting in Buffalo in 1901. Twenty years later when the convention returned to Buffalo, Mr. McCarthy was convention chairman. He was very active in various organizations for the improvement of the electrical industry and was general chairman of the Electrical League of the Niagara Frontier, past president of the Buffalo Electrical Contractors Association, and a director in numerous companies including the Marine Trust Co., the Iroquois Share Co. and the Buffalo Chamber of Commerce. Mr. McCarthy was in the New York National Guard for many years, rising to the rank of Major. He was a member of the American Institute of Electrical Engineers, the Engineering Society of Buffalo.

MODERN LIGHTING for A MODERN BUILDING—



and modern protection for the electric wires inside and outside. The Philadelphia Company Building, in Pittsburgh, used the original all-steel rigid conduit for lasting protection. Do you use "GALVADUCT" Rigid Conduit?

Garland Manufacturing Co., Pittsburgh, Pa.



**Porcelain Enamel Steel
Reflectors with Sockets
for
Factory Lighting**



No. 885
Standard Dome



No. 1092
Dome



No. 1071
Flat Cone



No. 761
Deep Bowl

OAMCO reflectors give complete satisfaction to your industrial customer. Durable, efficient, easy to install, immediate delivery. Send for catalogue.

**OVERBAGH & AYRES
MFG. CO.**
413 S. Clinton St., Chicago, Ill.



**A ROLL
O'
TAPE**

*Electrical flash-
es gathered
among the Big
Wire-and-Pipe
Men by*

Coit A. (Duke) Smith
and Walter Holmes
Field Editors, ELECTRICAL CONTRACTING

THE subject of "cock-eyed" switch plates is always interesting to me because wherever I go, there they are, leaning Sou' by Sou'east, spoiling the appearance of the wall. I mentioned it to W. L. Marks, Chicago electrageist, and he gave me a good reason why so many are off. He says the mechanic is in a hurry and lines up the plates with his eyes only a foot or so away, then dashes on to the next one. If he would stand off six feet or so, he would get an entirely different perspective.

CLARENCE Griffith, Scranton, Penna., has never had a mirror switch plate break. The secret, he says, is to always leave a little play for heat and cold changes.

ONE of the reasons why Edgar Rice, of the Electrical Construction and Supply Co., Alton, Ill., is noted for turning out high quality work and for taking lots of pains to make every job better than the last all the way through is that he has two wiremen who have been with him longer than a lot of contractors have been in business. One of these men has been with Rice for 18 years and the other 22 years; naturally they know his system and take pride in maintaining his standards.

THE Hub Engineering Company, New York, uses a color scheme of sleeving that speeds the work of hooking up armature windings to the commutator. Black, red and blue denote wires leading to the various coils. This is not exactly an original discovery, but there are certainly a lot of shops that could adopt this practice and save time.

OLD MAN Prosperity must be sitting right on the doorstep of the Electric Construction Co., Sioux Falls, S. D. H. W. Claus has recently doubled his floor space to take care of a new



**I
IDEAL
D
IDEAL
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IDEAL
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IDEAL
FREE**

The modern, accepted and fully approved way to join wires is by using Ideal Connectors. They are quick, positive and afford better insulating protection. The fact that millions are being used proves that Ideals are eliminating the use of solder and tape in connecting wires.

Ideal Connectors screw over the ends of wires with the fingers. A spiral spring insert located in the inside of the Ideal Connector presses itself into the copper conductors as the connector is turned over the ends of the wire. This spiral spring insert acts as a current carrying sleeve.

Thousands of contractors throughout the country are using Ideal Connectors. If you are not now using them catch up with the times. Send the coupon attached below for free sample. Remember Ideal Connectors are fully approved by the Fire Underwriters, and they are fully covered by patent No. 1,700,985. They are scientifically made and save you money. Send for your sample today.

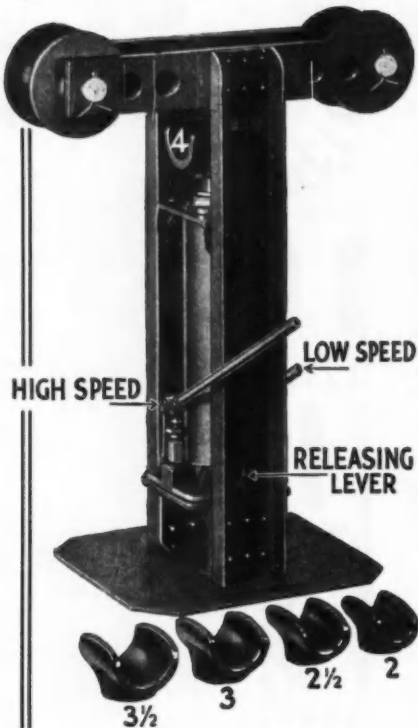
Ideal Commutator Dresser Co.
1041 Park Avenue
Sycamore - - - Illinois

1-31
IDEAL COMMUTATOR DRESSER CO.,
1041 Park Ave.,
Sycamore, Ill.
I would like to try Ideal Connectors and ask that you send free samples.
Name.....
Firm Name.....
Address.....
City.....State.....
My Jobber is.....
City.....State.....

SAMPLE

PROFITS

In the electrical contracting business are largely determined by the methods and equipment used on the job.



No. 4 CHICAGO 30 TON HYDRAULIC BENDER

WILL enable you to bend any size of pipe or conduit from 1 1/4" to 4 1/2" quicker, easier and safer than it has ever been done before. Requires but one man to operate it.

Hundreds now in use making money for their owners.

Truly a profit maker for the electrical contractor.

Write for folder.

GUSTAVE LIDSEEN, INC.
832-840 So. Central Ave.
Chicago, Ill.

LIDSEEN

set-up. The company, which is 22 years old, specializes in large work and lighting, and now has added the sale and installation of ranges, electric refrigeration and radio.

IT always makes the home towners feel fine when one of the local boys grabs off something really big in the face of heavy outside competition. C. H. Jones, of Racine, Wisc., is doing a large double-header in the wiring of both the city hall and courthouse in that city.

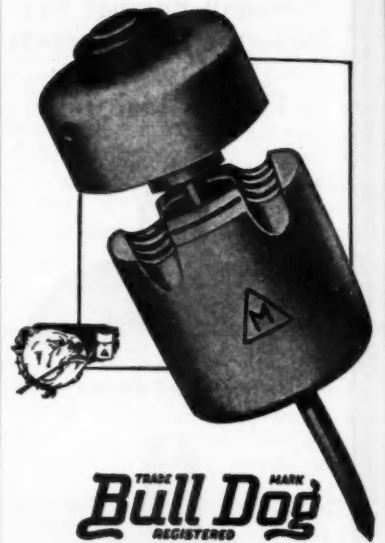
I ASKED H. B. Frazer, Philadelphia, why contractors fail. "A great many contractors do not keep in touch with the owner or the job after they have landed the contract," he declared. "No matter how competent the superintendent may be the owner likes to see the contractor himself on the job once in a while. And he likes to hear the contractor talk intelligently on the progress of the job instead of having to call in another person. The contractor who is too busy to give a little personal attention to his customers and their jobs soon finds himself with plenty of time on his hands."

THE C. O. Nelson Co., Tacoma, Wash., is especially well equipped for large work, in both the commercial and industrial lines, through many years' study of sales, engineering, tools and systems. This firm has to its credit the two million dollar Rhodes Medical Arts building, and is just finishing Tacoma's new steel viaduct.

A NEW contractor was proposed for membership in an eastern contractors' association. A member who was a rival of the proposed member objected to the admittance of the new firm but his objections were overruled. The two men met at the first meeting. They glared. Then they grinned. Then they sat in a corner and talked it over. Each man found that customers had been taking advantage of their rivalry and augmenting it by claims that the other one had made estimates lower than had actually been the case.

W. B. CAVEN, of the Star Electrical Construction Co., Pittsburgh, Penn., certainly knows how to act when opportunity knocks. On a freight house job his contract called for all the conduit being painted. By some real hustling he got his pipe up in time to have it painted by the people who had the job of putting three coats on the steel work. In addition he noted that there were cars carrying material always in the shed and his men worked

"It has a grip like its namesake"



Split Knobs

THESE are the safe, approved knobs for all types of residence wiring. They mean better jobs at no added cost. Bull Dog Split Knobs, together with Illinois Porcelain Tubes, Cleats and Solid Knobs form a complete line of standard porcelain.



Sold Through Wholesalers

Illinois Electric Porcelain Co.
Macomb, Illinois

from the tops of these cars instead of hauling in their own ladders and scaffolding.

RACINE, Wisc., is another city where the electrical construction fraternity is anxious to go on record as to the value of organization, especially in times of stress. F. H. Patrick, secretary of the Racine Chapter, A.E.I., says: "When business is slack, the local organization gives its members a feeling that they are not alone in the battle, it brings about an increased exchange of ideas and plans, and assures united backing for any legitimate campaign for securing needed business for all."

JOSEPH H. Schmidt of Wilkes-Barre, Pa., knows that it is easy for a man to forget some of the materials he used on a repair job. For that reason he has his men sign for all material taken to the job. When the job is completed the material returned is subtracted so that nothing is overlooked.

M. E. ARNOLD & Company, of Philadelphia, has a clever arrangement for keeping track of the company officers. By the front door is a series of switches, one for each executive. On entering the building each man throws his individual switch and his light appears in the office upstairs. If there is a phone call or visitor the information girl looks at the lights and knows at once if the person wanted is in the building. This plan was developed because men frequently spent half an hour or so in the shop before coming up to the office.

THE J. A. Spahn Electric Company, Wilmington, Delaware, had an unusual service call to handle while I was in town. Anyone touching the iron fence of a certain miniature golf course got a shock. Investigation showed that the trouble was caused by a ground in the building across the street.

J. C. FORSYTHE, supervising engineer, N. Y. Fire Underwriters, tells about a recent \$350,000 hotel fire caused by a defective flexible cord. Cases of this kind are frequent and fire is avoided in countless others through the work of the inspectors. But the inspector is seldom thanked for his work in eliminating the cause of fire. The typical building owner is eternally grateful to the fireman who will flood his building after a fire starts but he howls like one in mortal agony at the inspector's suggestion of spending a few dollars with a contractor to prevent fire.

More Sales

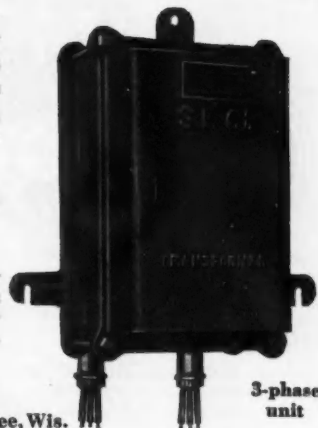
It's easy to sell and install SORGEL Air-Cooled Transformers because you can show industrials how to save money, reduce costs and step up efficiency, by supplying 110 volts for lighting, portable tools and appliances, from 220, 440 or 550 volt A.C. power circuits.

Stock $1/4$ to 50 KVA. Single phase
Sizes 2-phase
Other sizes built to order 3-phase

They're Air-Cooled. No fire-proof vaults or enclosures necessary. Installations can be made easily and economically most any convenient place inside of buildings. No oil. No upkeep.

SORGEL ELECTRIC CO.

Clybourn & N. Plankinton Sts., Milwaukee, Wis.



SORGEL
AIR-COOLED
TRANSFORMERS

Approved by
Underwriters

With
Conduit
Connections

New Items in the

QUAD
LIGHTING UNITS

Catalog #4



Special Dome Reflector with Q-D Socket Fitting.

The new "Quad" Catalog is effectively serving leading electrical jobbers and contractors as a source-book for illuminating data as well as for buying information on the "Quad" line of Reflectors, Fittings, Lighting Units, etc.

Among the new, popular and practical specialties described and illustrated in this catalog is the pull-socket fitting for Q-D Reflectors available in three types: Horizontal (illustrated), Vertical and Outlet Box Type.

Refer to our catalog in your files or request a supply on your business stationery.



Above — Quad Reflector with Horizontal, Keyless Weatherproof Socket Fitting.



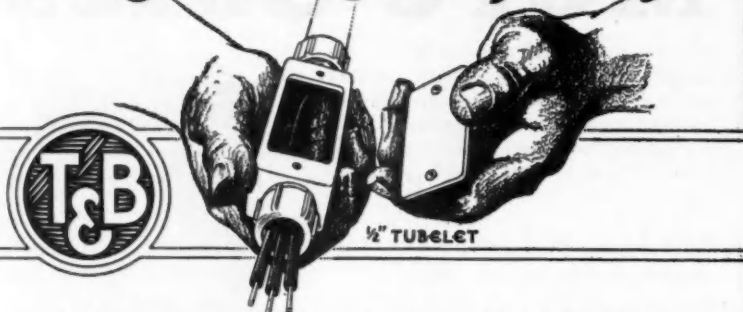
At Left — Medium Pull-socket Fitting for Q-D Reflectors.

QUADRANGLE MANUFACTURING CO.

30 S. Peoria Street

Chicago, Illinois

Big enough, is plenty



TUBELETS, the new outlets designed especially for use with electrical metallic tubing (thin wall conduit) are small, neat and inconspicuous. The less noticeable fittings are, the less they interfere with architectural features and decorations.

Half inch TUBELETS are big enough to pack away four good splices or wire up devices.

TUBELETS are threadless fittings and are vaporproof when gasketed.

TUBELETS are made in two forms: round and rectangular, with wiring devices for both.

TUBELETS are made of tough malleable iron and protected from corrosion with Tabolite. The bright silvery finish of Tabolite forms a rich color contrast with the black porcelain wiring devices.

TUBELETS are made the full wall thickness required by the code and are approved by the Underwriters Laboratories.

THE THOMAS & BETTS CO.

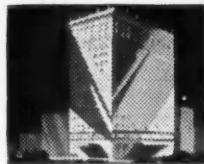
General Sales Office and
Factory:
30 Butler St., Elizabeth, N. J.

New York Office:
18 Park Place
New York City

In St. Louis

Hotel Mayfair....

8th and St. Charles



In the center of theatre and shopping districts. Floor lamps, fans, circulating ice water in every room. The quiet, refined atmosphere of an exclusive club—an hotel of distinction. Dining room. Coffee shop. Garage service.

400 ROOMS — \$3⁰⁰ to \$6⁰⁰
BATHS

Hotel Lennox....

9th and Washington



St. Louis' newest and smartest hotel opened September 3rd. In the heart of business district. Dining room. Coffee shop. Garage service.

400 Rooms with tub bath and shower — \$3⁰⁰ to \$6⁰⁰

Hotel Kings-Way...

West Pine at Kingshighway



Opposite beautiful Forest Park. Near bus, street car and motor highways. 20 minutes from downtown. Club breakfasts, table d'hôte dinners. Rooms for two from \$4. Special rates for permanent guests.



Heiss Hotel System KMOX

PRACTICAL ME

Compact Conduit Bender

A conduit bender having no accessories or loose parts has recently been devised by Harry Blythe, an electrical contractor in Denver, Colo., for bending or making offsets in $\frac{1}{2}$ and $\frac{3}{4}$ in. conduit.

To use the bender it is mounted on a board and laid on the floor. It will bend three ells and offsets of any

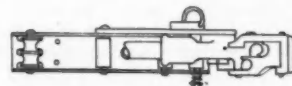
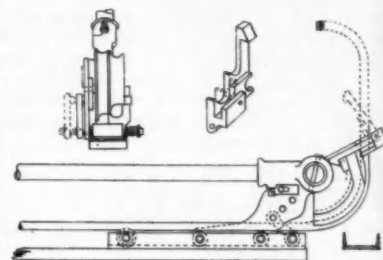
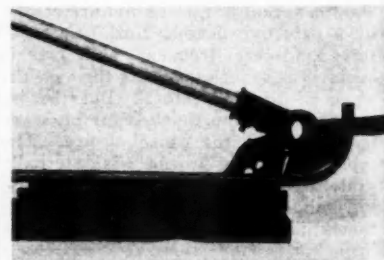


DIAGRAM OF BENDER CONSTRUCTION.

design, a small radius bend of $2\frac{1}{2}$ in. dia. in $\frac{1}{2}$ in. conduit and a large radius bend of $3\frac{1}{2}$ in. dia. in $\frac{1}{2}$ and $\frac{3}{4}$ in. conduit by merely raising or lowering the side arm. The pipe to be bent is laid on the rollers and the front latch turned up. Then, by bearing down on the handle, until it contacts a stop, a full 90 deg. ell is produced. The handle is then pushed back to its original position, the latch let down and the pipe slips out from the side. This makes true bends, always the same from a given mark, easy to bend and as short as



THE BENDER

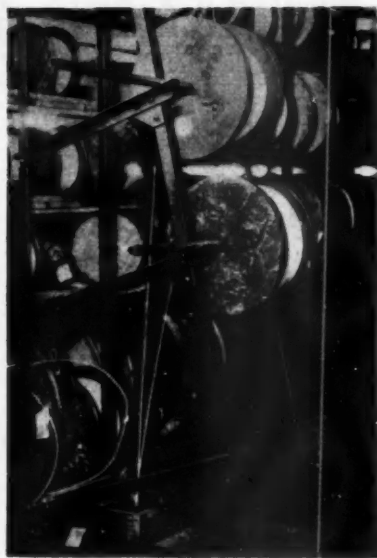
CABLE METHODS

the Code allows. It is light, can be carried around with one hand and used in any room, floor or deck, no permanent mounting of any kind being needed.

Mr. Blythe has used one of these machines on the new City Hall in Denver, bending more than 6,000 cels.

Handling Coil Wire

Coil wire is cumbersome and difficult to handle, especially so when it is stored on the second floor of the shop, as is frequently the case. The J & H Electric Co., Providence, R. I., has found a quick and efficient way to deliver this wire to the coil winding machines without removing the



RACK ARRANGEMENT

heavy reels from the proximity of the storage rack on the second floor.

The wire required is selected from the stock and placed on the special rack adjacent to the storage rack, as illustrated. This rack is constructed of angle iron and is made to accommodate three reels.

The wire is threaded through a roller equipped opening in the floor

When Things Go Wrong
ELECTRICALLY—

Test-O-Lite

A PRACTICAL POCKET TESTER

—Indispensable to Electrical Workers
and In the Household

DETECTS FAULTS

in electric light and motor circuits, auto
spark-plugs, household appliances,
radio sets, etc.

List
\$1.50

Discounts on 100 or
more—with plates bear-
ing your firm name, mak-
ing an exceptional souvenir
for any anniversary or conven-
tion.

Locates
Burnt-Out Fuses

TESTS Current 110 volts up to
550 volts A. C. or D. C. in-
dicating the voltage.

TESTS leaks up to 20
megohms. Detects
live and ground
wires.



**L. S. BRACH
MFG. CORP.**

NEWARK, N. J.
TORONTO, CANADA



Patented
Oct. 21, 1930
No. 1,778,883



ADAPTIBOX (3200)

3 Kinds of Fittings

Some kinds of conduit fit-
tings you ALWAYS need.
Some you SOMETIMES
need. And some you're
sure you won't need—
till a rush job gets
stalled because you
don't have them. The
ADAPTi Line meets all
these three needs, and
does it with less stock
investment than you'd
think possible.



VAPOR-PROOF
ADAPTIFITTING (9110)



ADAPTILET (8060)



THREADLESS
ADAPTILET (8010-NT)

Small Stock—All Needs

For ordinary solid fitting
jobs — ADAPTILETS and
THREADLESS ADAPTIL-
LETS. For extra damp or
dirty runs — ADAPTi
VAPOR-PROOF fittings.
For "specials" or for
providing for subse-
quent changes or ex-
tensions — ADAPTi-
BOXES, with the
detachable interchange-
able outlets which en-
able you to change
size, type or direction.

Ask for Folder describing ADAPTi Line

The ADAPTi Co.

2996 East 72nd St., Cleveland, Ohio

NEW YORK CITY—A. Stone, 118 E. 23rd St.
BOSTON, MASS.—E. R. Bryant 88 "B" St.
CHICAGO—United El. Sales Co., 300 W. Adams St.
PHILADELPHIA—Craven El. Sales Co., 30 Bank St.

The CHICAGO

is the Quickest Way To Hang All Conduit!

With the Chicago Conduit Hanger you make 2 operations—

1. Drill Hole
2. Put conduit in place and drive hanger in with fluted punch.

In addition to ease of installation these hangers

1. Cost less
2. Take less drilling in brick or concrete
3. Take less labor to install
4. Have no protruding bolts or nuts

Your next job and every job will be easier and net you more money if you use Chicago Conduit Hangers, and other Chicago products which include Expansion Bolts, Expansion Screw Anchors, etc.



**Free
Samples
Will Be
Sent You**



The Chicago Expansion Bolt Co.
126 S. Clinton St. Chicago, Ill.

A BIG MONEY SAVER

Eliminates triple handling—unwinding—measuring and rewinding wire, thus saving time and money. Manually operated—reels wire into neat coil, automatically counting and registering number of feet. Strongly built of heavy selected materials so as to last a lifetime.

It Pays for Itself

Send for bulletin.
Write us or your jobber.

**Minneapolis Electric
and Construction Co.**

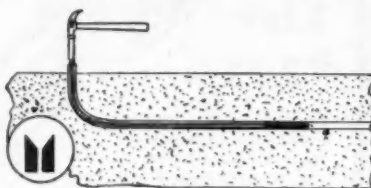
88 S. 12th St.
Minneapolis Minn.



directly to the winding machines below. This arrangement not only facilitates the handling of the wire reels but allows a maximum working space around the winding machines.

Removing Concrete from Conduit

In spite of all that can be done when concrete is being poured some of it will get into the electrical conduit. Sometimes these obstructions will be quite a distance from the nearest opening. James Hunter, Superintendent of the Bison Electrical Co.,



HOW CONCRETE IS REMOVED

Buffalo, N. Y., has a method of removing the concrete which is worthy of attention. He uses two lengths of $\frac{1}{4}$ in. fish steel and cuts the ends diagonally as shown in the diagram. The steel is then introduced into the conduit until it reaches the hardened concrete. Then a short piece of $\frac{3}{8}$ in. pipe is slipped over the ends of the tape in the operator's hand so that the ends can be struck with a hammer. The concrete is then chiseled out by the process of steady tapping. Although it is admitted that this is in itself a tedious operation, yet it is far cheaper and quicker than any tearing up or the use of more expensive flexible material to reach the obstruction.

A Portable Wire Pulling Winch

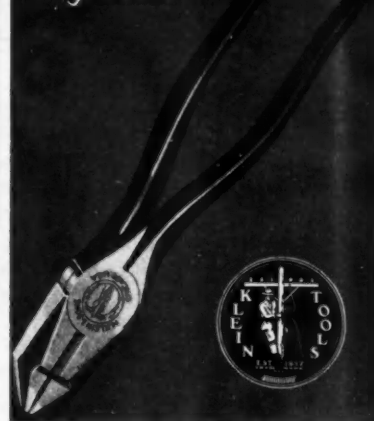
By utilizing a wire cutting and threading machine to turn a winch, W. H. Hoch, superintendent of construction for McEldowney & Son, Oklahoma City, Okla., is able to speed up wire and cable pulling considerably.

Mr. Hoch designed the winch and had it built to work with the threading machine, which has a $\frac{1}{4}$ H. P. motor.

To illustrate the effectiveness of this arrangement, the following feats of pulling are cited:

On the Oklahoma Pub. Co. building job, a 100 ft. pull of three 500-

*Buy from your
jobber*

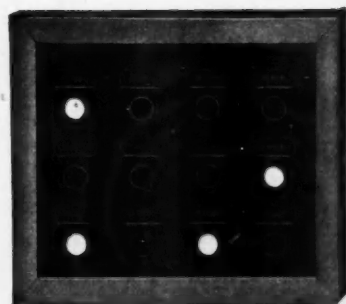


KLEIN PLIERS Standard with Electricians

Electricians everywhere know Klein Pliers—the standard of quality “since 1857.” The Klein line includes Side Cutting, Oblique Cutting, End Cutting, Diagonal, Long Nose, Duck Bill and a wide variety of other patterns to fit every electrician's need. For the best work be sure the pliers in your hands are Kleins.

Mathias KLEIN & Sons
Established 1857 Chicago, Ill.

3206 BELMONT AVE., CHICAGO



Annunciators and Push Buttons

For residences, banks, business offices, etc.—Holtzer-Cabot Annunciators and Push Buttons are simple, reliable and reasonably priced.

The Holtzer-Cabot Electric Co.
Executive Office and Factory
Boston, Mass.

New York	Chicago	Baltimore
Pittsburgh	Philadelphia	Cleveland
Detroit	Syracuse	Minneapolis
San Francisco	Los Angeles	

PIONEER MANUFACTURER OF COMPLETE SIGNALING SYSTEMS

TRADE PAINE MARK

Paine Lead Anchors

THE APPROVED ANCHOR

For attaching any article regardless of weight or strain to solid material such as concrete, brick, tile, slate, marble, stone, etc.

Minimum of diameter and depth of hole required for powerful anchorage.

Assembled ready for installation. Setting tools furnished with anchors.



Machine Screw Type Standard Thread



Nut and Bolt Type Cadmium Plated

GUARANTEE

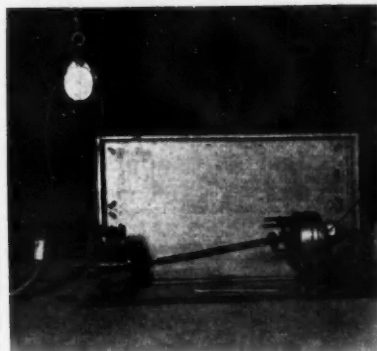
We give our Lead Anchors the same unconditional guarantee that we do Paine Spring Toggle Bolts.

SEND FOR FREE SAMPLES
AND PRICES

THE PAINE COMPANY

2945 CARROLL AVE. CHICAGO, ILL.
79 BARCLAY ST. NEW YORK, N. Y.

000 CM cables was made in 3 in. conduit, around three 90 deg. bends with offsets. The actual pulling time was 30 minutes, at a total cost of \$8.00.



THREADING MACHINE IS FASTENED TO WINCH FRAME AND CONNECTING ARM ATTACHED.

The same job by hand would have cost \$35.00.

Another job stacked up as follows:

	Total Feet
9 pulls of 500,000 CM cable,	3,000
9 " " 2/0 " "	3,000
9 " " No. 4 " "	3,000
3 " " 4/0 " "	1,500
3 " " No. 1 " "	1,500

All of these pulls were made in two days by only five men.

Oxygen-Gas Torch for Soldering Commutators

The Penna Electric Repair Co., Pittsburgh, Pa., employs a fast method of soldering connections to commutators. The work is done with a special soldering torch using natural



SOLDERING CONNECTIONS
WITH OXYGEN-GAS TORCH.



APPROVED

By World Authorities

Built By Sherman

To the minutest detail, the new SHERMAN TINNED SPLICING SLEEVES for STRANDED CONDUCTORS rigidly follow the specifications recommended by the N. E. L. A. committee.

Made from the highest quality of pure copper and fashioned with specially designed machinery and tools.

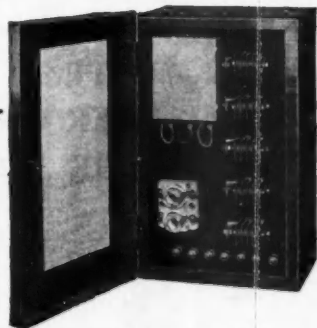
CONSIDER these 4 important features:—

1. Ample tensile strength. Wire will break before sleeve will loosen.
2. Tested for overheating.
3. For either round or sector shaped cable. Dead soft anneal permits tight mechanical clamping before soldering.
4. All surfaces smoothly tinned with solder alloy recommended as easiest and quickest for soldering. All outside edges rounded.

All sizes shipped from stock. Samples on request. Large size samples on consignment.

Sold Through Jobbers

H. B. SHERMAN MFG. CO.
Battle Creek, Mich.



Replace Storage Batteries With B-L Rectifiers

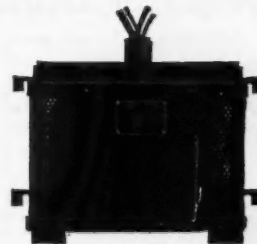
Modernize your storage battery equipment—replace them with B-L Rectifiers. They are dry . . . noiseless . . . and long-lived and can be used on school clocks, program ringing, time clocks, inter-communicating phones, etc.—wherever low-voltage direct current is necessary.

Try them on the next new job—also on replacement jobs. Cost is usually less and they work more efficiently. Available in many standard types and sizes. If the job needs special features, write us. Our Engineers will be glad to make recommendations. Complete literature sent on request.

The B-L Electric Mfg. Co.
ST. LOUIS, MO.

B-L
RECTIFIERS

TRANSFORMERS



For Indoor Service
Type MD

All Types for All Purposes

From the bell ringing type for a 4-room bungalow to the power type for gigantic industrial plants.

Standardize with

Standard

CLIP AND MAIL COUPON TODAY

The STANDARD TRANSFORMER CO.
WARREN, OHIO

Kindly send me bulletins describing and illustrating your complete line of "Standard" Transformers.

Name.....

Address.....

City..... State.....

A Happy and Prosperous New Year

Meier Nu-air
TRADE MARK REGISTERED



NU-AIR DEALERS WILL MAKE MONEY IN 1931

They have the product, the price, the factory co-operation and the profit margin. An early start means early profits.

Write us today

MEIER ELECTRIC & MACHINE CO.
3525-3535 E. Washington Street
INC. 1904 INDIANAPOLIS, IND.

gas and oxygen. The bar is heated about $\frac{1}{2}$ in. below the riser and solder fed in from the top of the bar. Very little gas is used because the oxygen concentrates the heat on the bar. This company finds that jobs can be done in one-third of the normal time by the use of this torch.

Storing Conduit

The McCleary & Harmon Co. of Detroit, Michigan, employs very good methods of keeping and getting out stock. The office and shop are so situated that nearly all loading is done in the rear, the back yard being large enough to hold all the company cars and take care of trucks coming



CONDUIT STORAGE SHED.

and going with material. They found the getting out of ordinary quantities of pipe for quick transportation to the job quite a problem. Therefore, they erected the corrugated iron pipe shed shown in the picture. This will hold a car-load of conduit, and as the trucks can back right up to the supply, there is never any delay in getting out rush orders.

A Test Board

A contractor's shop without some kind of testing apparatus can hardly be considered up-to-date. Again, there can be a system of testing which, put up in a hurry, is not adequate. Clarence W. Uschold Electric Shop, Buffalo, N. Y., designed the testing board shown in this picture which takes care of all appliances, batteries, etc. At the top left is a bank of series resistances composed of lamps with a composite of $\frac{1}{2}$ watt to 600 watt. Directly below this bank are six single pull toggle switches controlling the resistance. Below that are a series panel switches and a pin jack outfit side by side. Still farther down are four different styles of re-

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I AM!

SEE HOW
IN THE
W. B. B.

AND SO CAN
YOU IF YOU
DO LIKE I DO!

Alert Contractors
who apply business building

ideas and plans featured in each issue of Wiremold Business Builder are making money and getting plenty of jobs to do.

IF YOU ARE NOT READING EVERY ISSUE YOU ARE LOSING MONEY!

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WBB HEADQUARTERS
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Color Lighting Equipment For Interiors and Exteriors



Reco Color Hoods

For lamps up to 60 watts.
(Full and half types.)



Laco Color Hoods

For lamps 75 w. to 500 w.
(Single or two tone effects.)



Color Plates

For flood lights, spots, etc.
(Also square and oblong in shape.)



Color Cylinders

For Street lighting units,
wall pockets and decorative
lighting effects.
(Made semi or full circular)

Headquarters for Color

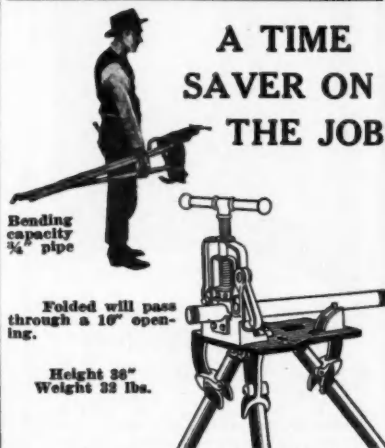
Ask for Illustrated Pamphlet
"PROFITS FROM COLOR"

REYNOLDS
ELECTRIC COMPANY

MANUFACTURERS RECO SIGN FLASHERS
TRAFFIC CONTROLS, SMALL MOTORS, ETC.

2623 W. Congress St. - Chicago, Ill.

**A TIME
SAVER ON
THE JOB**



Bending capacity
 $\frac{3}{4}$ " pipe

Folded will pass
through a 16" opening.

Height 36"
Weight 33 lbs.

... when you cut, thread or bend pipe or conduit. The "Handy Andy" is truly the ideal portable Vise Stand. Is light but strong and rigid. Instantly set up or moved. Has no loose parts. Accommodates hinged or chain vises without drilling. Fully guaranteed. Insist upon the "Handy Andy" Vise Stand. Accept no substitutes. Order from your Jobber.

"HANDY-ANDY"
VISE STAND
WESTERN WIRE PRODUCTS CO.
3rd and Spruce Sts.
ST. LOUIS, MO. U. S. A.

Speed plus Safety

A-1 & JR



With

SRK

Patented

WIRE CONNECTORS



BBETTER results could not be obtained if you paid more than S R K's cost you, nor can you get full measure of satisfaction when paying less.

For reliability and efficiency you can find nothing to equal JIFFY WIRE CONNECTORS.

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1-31



Solder Dipper

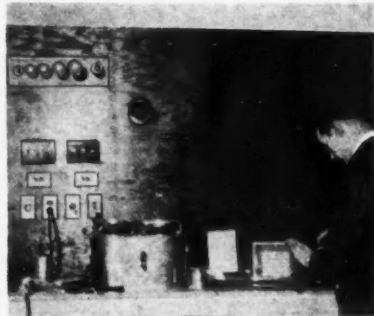


Nipple Chuck



Box Cutter

ceptacles, including a polarity receptacle, for the plugging in of appliances. The right side of the board



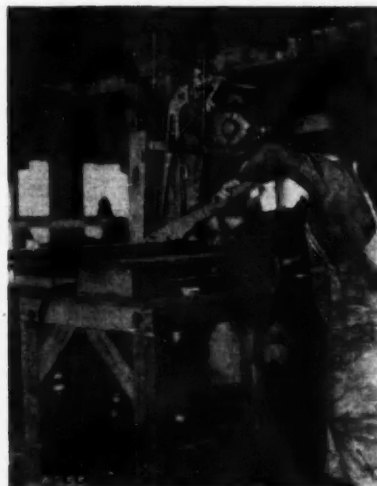
AN ADEQUATE TEST PANEL.

is devoted to battery and transformer low voltage tests. Light for the work is furnished by two 100 watt bulbs and green glass half shades. This board is hardly finished, yet it has brought about a speeding up of the work, and has made the operations much easier for the mechanics.

Cutting Steel Underfloor Duct

The cutting of steel underfloor duct is frequently a problem for the electrical contractor in that where odd lengths are required, the hacksaw method takes a lot of time.

Charles A. Langlais, San Francisco, Calif., in wiring the Shell Building of that city, solved the problem by using a high speed electric saw which was fitted with an abrasive cutting wheel to cut the duct. The outfit was nailed on a sturdy bench which could be moved about wherever needed.



CUTTING DUCT WITH ABRASIVE WHEEL.



A Combination that Can't Be Equalled

With a light, compact ARMSTRONG BROS. Chain Vise and an ARMSTRONG BROS. Triplex Stock equipped with 3 ARMSTRONG BROS. Pipe Dies, you will have a conduit threading combination that can't be equalled. ARMSTRONG BROS. Dies are of improved design, with "backed-off" Vanadium Tool Steel Chasers that cut faster, last longer.



ARMSTRONG BROS.
(Patented)
Chain Pipe Vise

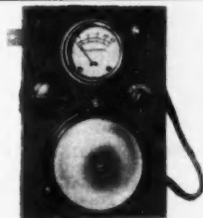
Drop forged 1-piece jaw. Conduit fully supported between jaws; cannot bend. Drop forged base and handle. Alloy steel screws. Proof-tested chains.

Write for Catalog P-10
ARMSTRONG BROS.
TOOL CO.

"The Tool Holder People"
341 N. Francisco Ave.
CHICAGO, U. S. A.

ARMSTRONG BROS.

CLIP and TAP?



SAFEGUARD ALARMS

Around the next corner, up the street and out on the highway there are hundreds of live prospects for Safeguard Alarms — Burglar-Fire-Dead Circuit — Brooder-Incubators, etc. Rings when circuit is broken—operates on line power or dry cells. Clip the Coupon below and let us tell you how to tap this market.

WM. E. PFEIFFER CO.

205 Pearl St. Council Bluffs, Iowa

Gentlemen: Please send me Safeguard Alarms Booklet.

Name _____

Address _____

City _____ State _____

Manufacturers News

A department for the announcement of activities of manufacturers that are of interest to contractors, such as changes in executive personnel, branch offices, new products, etc.

Weber and H. D. Sears Consolidate

On January 1 Henry D. Sears, general sales agent, Boston, Mass., merged with Weber Electric Co., Schenectady, N. Y. The Boston office has been given up as a separate sales organization and all business will be handled from Schenectady.

For thirty years the manufacturing and selling ends of the business have been handled by these two separate but very closely affiliated organizations. The consolidation has been effected, it is stated, in order to bring about increased efficiency and to give customers quicker and better service. Mr. Sears has been appointed vice-president of Weber Electric Co. in charge of sales and Frank Burton will continue as sales manager. Both will be located at the general office in Schenectady.

Branch offices will continue exactly as heretofore in charge of the same district managers, except that they will operate in the name of Weber Electric Co.

Announces Insulated Aluminum Conductors

General Cable Corp., New York, announces a varied line of insulated aluminum wires and cables under the trade name of "Alectral." The initial group of insulated aluminum conductors includes such constructions as network cable, non-metallic underground cable, insulated line wire, tree wire, armored cables, magnet wire, starter cable and car wiring cable. Connections are made by applying high pressures to sleeves by means of a specially designed light-weight hydraulic press. For applications in which tensile strength is not a prime consideration, conductors of Alectral wires and cables are all-aluminum. For aerial service in which tensile strength in relation to resultant loads is of major importance, certain stand-

ing combinations of aluminum and steel have developed. Alectral wires and cables are materially lighter than the equivalent insulated copper conductors.

Porcelain Enamel Institute Elects Staud

R. W. Staud, advertising and sales promotion manager of the Benjamin Electric Mfg. Co., Des Plaines, Ill., has been elected vice-president and secretary of the Porcelain Enamel Institute, Inc. In addition, Mr. Staud is president of the Engineering Advertisers' Association of Chicago, a member of the industrial and commercial lighting committee and of the national outdoor lighting committee of the commercial section of the Electric Light Association, and chairman of the manufacturers' advisory committee of the lighting service committee of the Illuminating Engineering Society.

Paine Company Makes New Appointments

George W. Day, formerly manager of ventilation division of American Blower Co., Chicago, has been appointed sales and advertising manager of The Paine Co., Chicago.

Two new representatives will represent the company, as follows:

H. W. Duschak, 1360 Amherst St., Buffalo, N. Y., representative for western New York and western Pennsylvania, and Ernest T. Loyd, 231 Healey Bldg., Atlanta, Ga., representing the company in the southeastern states.

Mathias Klein & Sons, Chicago, has issued catalog No. 30, which fully describes and illustrates its entire line, together with tables of wire gauges, breaking strengths of cable, etc. Information is also contained on the care and use of leather goods in electrical work.

General Electric Transfers Dillingham

J. O. Dillingham, formerly general specialist for the General Electric Co.'s merchandise department in southern California and Arizona, has been transferred to San Francisco as district supervisor of that department's newly created construction materials division. This division will handle construction materials, including wiring devices, conduit products and code wire, as well as miscellaneous materials and automotive products.

R. C. Mixer, formerly general specialist for the merchandise department in central California, has been transferred to Los Angeles as district specialist for the construction materials division in southern California and Arizona.

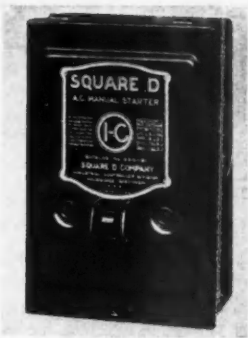
All-Steel-Equip Co., Aurora, Ill., has recently published a new catalog covering its complete line of A-S-E cut-out boxes, flush cabinets, pull boxes, wiring troughs, special boxes, fuse cabs, guttered and weatherproof cabinets. A special insert of the latest A-S-E outlet box with Jay-Kay clamps outside is also included in the catalog.

Roach-Appleton Moves Into New Factory

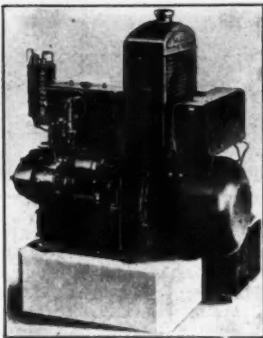
Roach-Appleton Mfg. Co., formerly of Chicago, are now occupying their new factory on West Sample St., South Bend, Ind. This factory was built according to the specifications of the company, and it is a model in industrial layout, permitting unusually good working conditions, both from the arrangement of machinery and daylight and artificial lighting.

The company will continue to keep stock in its Chicago warehouse at all times to facilitate shipments.

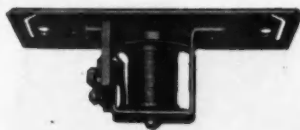
New Electrical Products



The Industrial-Controller Division, Square D Co., Milwaukee, Wis., announces Class 2510 manual starter with push-button reset. Three-phase ratings of starter are 5 h.p., 220 volts and 7½ h.p., 440-550 volts and is suitable for looms, pumps, portable conveyors, fans and any application where low voltage protection is not required. Starter also has trip-free handle. As starter is operated from the front it may be mounted in pairs or groups on pedestal or wall without waste space.



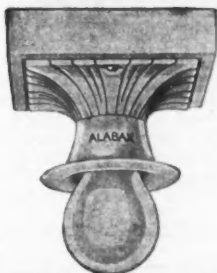
The D-32 Kohler electric plant is announced by the Kohler Co., Kohler, Wis. This unit has a capacity of 1½ k.w., and with engine running it operates motors up to 2 h.p. It delivers current up to 300 watts from a small two-tray rubber cell 32-volt battery. From seven to twelve 25-watt lamps can be turned on with current supplied, without operating. Power for heavy duty comes from generator after plant has been started.



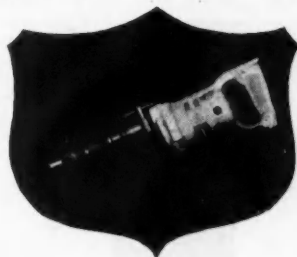
An a.c. buzzer for flush mounting has been developed by S. H. Couch Co., Inc., of Norfolk Downs, Mass. This buzzer operates on the solenoid principle. Current consumption is very low, and it is designed to operate from a standard house bell ringing transformer on the 8 or 12 volt tap. Mechanism is constructed to fit into a standard one-gang switch box, and a standard one-gang blank switch plate with screw holes on 2½ in. centers may be used as a face plate. By breaking off ends of mounting plate this buzzer may be installed in a standard surface switch box.



The Merchandise Department of General Electric Co., Schenectady, N. Y., announces four new designs of sunlamps as follows: Model A and B, both floor types with transformer located in base; model C, ceiling type with transformer located above reflector, and model D, wall type. The transformer is a separate unit for model D, and may be hung from the wall bracket supporting reflector or may be set up as a separate unit with wires leading to the bulb. The sunlamp uses a special bulb emitting ultraviolet rays of longer wave lengths. A transformer is used to reduce the voltage of the ordinary house circuit from 110 volts to operating potential of the lamp.



Pass & Seymour, Inc., Syracuse, N. Y., announces a group of Alabax ceiling units. There are four devices in this group consisting of pull chain and keyless types with 2¼ in. shadeholders. The base is 5¼ in. square with a recessed back permitting it to be flush with wall surface and will fit all types of outlet boxes. They are furnished with the necessary straps and screws for mounting.



A combination hammer-drill is announced by the Milwaukee Electric Tool Corp., Milwaukee. The motor of this unit operates on either a.c. or d.c. and will accommodate 32, 110, 150 or 220 volts and will drill a ½-in. hole in concrete 2½ in. deep; a ¾-in. hole 1½ in. deep or a 1-in. hole ¾ in. deep. The hammer attachments will fit a full ball-bearing electric drill and is so designed that it can be attached to electric drill to drill holes in concrete for anchoring machines, installing meters or for running pipe lines and conduits through brick walls. This unit weighs 9½ lbs.

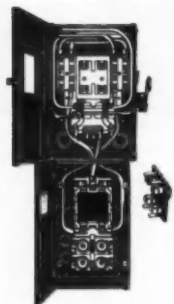


Hill-Standard Co., Anderson, Ind., is manufacturing the Hillite flood light projector for sport lighting, exhibition, commercial and general outdoor lighting. This unit consists of cast aluminum cap, chimney, spider and bowl, steel skirt, porcelain enameled inside and out, all screws and bolts made of brass, and adjustable lamp socket. This unit takes 750 to 2000-watt lamps, and is furnished with wall, wood or steel pole fixture.

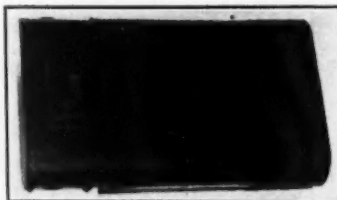
New Electrical Products



The Bodine Electric Co., Chicago, announces type N-5 fractional h.p. motor in 2 frame sizes, rated at 1/20 and 1/12 at 1125 R.P.M., 1/10 and 1/8 h.p. at 1725 R.P.M. The frame is equipped with wool-packed bearings and has double oil slots at sides of bearing; knitting yarn is packed around non-freeze leaded bronze bearing with a tight dust cap. Large ventilating ducts on the stator permit the use of a larger fan.



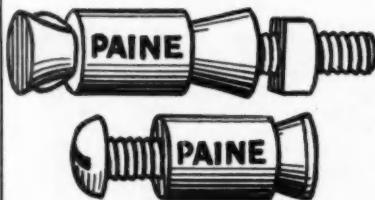
An accessible fuse meter service switch with range and lighting circuits for new and old residence wiring is announced by the Wadsworth Electric Mfg. Co., Covington, Ky. This unit has a 100 percent safety 60 amp. accessible fuse meter service switch with test facilities in upper part and range and four lighting circuits in lower part of cabinet; it is equipped with shutter containing knockouts for standard meter and neutral terminals for service wire are located in upper part of cabinet. Plug fuse blocks are of bakelite. The bakelite pull cover, to which is attached the fuse clips and large contact blades can be removed from porcelain base for fuse renewals or inspection. The neutral terminals for each individual circuit are close to fused terminals; the pull cover has holes for testing the range fuses, and the dead front has holes for testing lighting fuses. The unit is wired complete. Metal meter board is of a formed steel construction, and the entire unit is finished in baked black enamel.



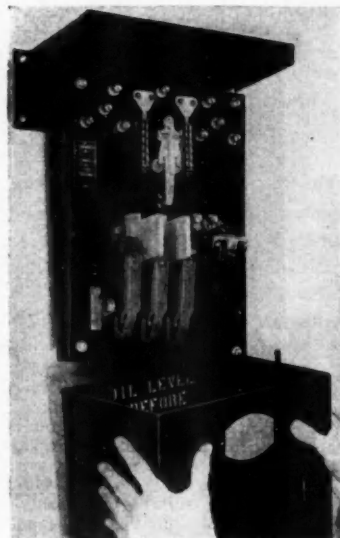
An E M 1 Kv-a cell type capacitor for use with small Neon signs is being manufactured by the Electric Machinery Mfg. Co., Minneapolis, Minn. This capacitor is connected to the low voltage side of the transformer to correct the power factor. The rugged construction of the 18-gauge sheet steel case is embodied throughout the unit. Mounting may be facilitated by special brackets.



The Ralco Manufacturing Co., Chicago, Ill., have added to its watertight line the cord connector shown above. This is made 2, 3 and 4 pole; each with an extra terminal for protective ground wire; 30 and 60 amp. for use on 250-volt d.c. and 600-volt a.c. circuits.



The Paine Co., Chicago, announces lead anchors in machine screw and bolt and nut types used for attaching any object to hard materials such as concrete, brick, tile, slate, marble, stone, etc., where shallow holes for installation are necessary. These anchors fit flush with surface. Anchors are assembled ready for installation and are expanded before fixture is placed into position. A few hammer blows on setting tool (furnished with anchors) drives the lead sleeve toward the base of brass cone, which should be at bottom of hole, and is expanded by the tapered formation of cone to the degree necessary to bind tightly against sides of hole.



The Monitor Controller Co., Baltimore, Md., announces an oil-immersed Thermaload starter. This control equipment gives across-the-line full-voltage, start with overload and low-voltage protections, consisting of a standard Monitor magnetic contactor mounted on a panel with Monitor thermal relay, enclosed in an oil-tight box. The oil level completely immerses the contactor and contacts of the relay. The thermal elements are above the oil level.



A right angle drill is announced by United States Electrical Tool Co., Cincinnati, Ohio, built with special head for drilling between studs, joists and other close places. This unit has chrome nickel steel gears, hardened, running in grease; universal motor for a.c. or d.c. (110 volts, 60 cycles); short-proof trigger switch and accommodates bits 2 1/4 in. or smaller, turning at 210 r.p.m.

E-Z WIRE STRIPPER**A HANDY TOOL**

This inexpensive tool strips wire of 10 to 20 gauge 20 times faster than usual methods.

A MONEY BACK GUARANTEE with every E-Z Wire Stripper. Send for yours now.

\$5.00 LIST

PYRAMID PRODUCTS CO.

3315 South State Street

Chicago, Ill.

SILVEY HICKEYS

Won't Slip, Crush nor Kink



A deep groove on the inside of the bend removes pressure where pipe is shortening and thickening; allows it to flow outward instead of pushing it inward. Compare its work with work done by any other Hickey. Get a set. Your money back if you're dissatisfied for any reason. Thousands sold without complaint. Electricians

Made in 1/4", 3/8", and 1-in. sizes. Patented.

Ask Your Jobber

Jobbers everywhere have Silvey Hickeys in stock. If yours will not supply you, we will ship direct.

SILVEY PIPE BENDER COMPANY
2125 Brighton Ave. Kansas City, Mo.

IT'S PORTABLE

Carry the Martin Vise Stand and Pipe Bender with you... anywhere; set it up in one-half minute. Will not skid or tilt. A genuine **TIME SAVER** for cutting or threading conduit up to 2 1/2". Bending capacity 3/4". Write to



H. P. MARTIN & SONS
800 W. 12th St.
OWENSBORO, KY.

MARTIN
VISE STAND AND PIPE BENDER

Keep Up-to-Date

By reading these pages you will acquaint yourself with what is newest and best in electrical supplies and equipment.

When communicating with an advertiser mention

Electrical Contracting

C-H Appoints Donahue Buffalo Manager

Cutler-Hammer, Inc., Milwaukee, has appointed B. L. Donahue, manager of its Buffalo district office succeeding B. A. Hansen, who has resigned.

Upon Mr. Donahue's graduation from Penn State College, he entered the employ of Cutler-Hammer and was connected with the Pittsburgh branch office for eight years, prior to his new appointment.

The Mica Insulator Co., New York, announces "Lamicoid," which is a laminated Bakelite material. This is produced in sixteen grades and in a variety of finishes.

Classified Advertising

Position Wanted: Man with a wide electrical contracting experience in all its phases as estimating, buying material and equipment and superintending installations available. Can make layouts and write specifications. Technical graduate. Can furnish reference. Box 131, Electrical Contracting, 520 No. Michigan Ave., Chicago.

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912.

of Electrical Contracting, published monthly at Chicago, Ill., for October 1, 1930. State of Illinois, County of Cook, ss. Before me, a notary public in and for the State and county aforesaid, personally appeared S. B. Williams, who, having been duly sworn according to law, deposes and says that he is the business manager of Electrical Contracting, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are: Publisher, Electrical Trade Publishing Co., 520 N. Michigan Ave., Chicago, Ill.; editor, S. B. Williams, 520 N. Michigan Ave., Chicago, Ill.; managing editor, V. A. Hanson, 520 N. Michigan Ave., Chicago, Ill.; business manager, S. B. Williams, 520 N. Michigan Ave., Chicago, Ill.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member must be given.) Edgar Kobak, 16th Ave., at 36th St., New York, N. Y.

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

S. B. Williams,
Sworn to and subscribed before me this 25th day of September, 1930.

(Seal) Elsie E. Stover.
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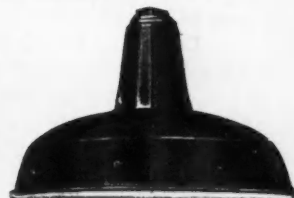
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Index to Advertisers

A		M	
Adam Electric Co., Frank.....	53	McGill Mfg. Co.....	40
Adapti Co.....	105	McGraw-Hill Book Co., Inc.....	74, 116
American Steel & Wire Co.....	41	McGraw-Hill Catalog & Directory Co., Inc.....	93
Anaconda Wire & Cable Co.....	4	Martin & Sons, H. P.....	113
Appleton Electric Co.....	43	Meier Electric & Machine Co.....	108
Armstrong Bros. Tool Co.....	109	Minerallac Electric Co.....	96
Arrow Electric Division.....	52	Minneapolis Electric & Construc- tion Co.....	106
B		N	
B-L Electric Mfg. Co.....	107	National Electric Products Corp...	Front cover
Brach Mfg. Corp., L. S.....	105	O	
Bryant Electric Co.....	50	Okonite Co.....	67
Bull Dog Electric Products Co...	Back cover	Overbush & Ayres Mfg. Co.....	101
Bussmann Mfg. Co.....	Inside back cover	P	
C		Paine Co., The.....	107
Central Tube Co.....	51	Pfeiffer Co., Wm. E.....	109
Century Electric Co.....	53	Pittsburgh Reflector Co.....	115
Chicago Expansion Bolt Co.....	104	Pyramid Products Co.....	113
Couch Co., Inc., S. H.....	88	Q	
Cutler-Hammer, Inc.....	26-27	Quadrangle Mfg. Co.....	103
D		R	
Day-Brite Reflector Co.....	96	Ralco Mfg. Co.....	100
E		Reynolds Electric Co.....	108
Emerson Electric Mfg. Co.....	85	Roach-Appleton Mfg. Co.....	2
F		S	
Fretz-Moon Tube Co., Inc.....	99	Sherman Mfg. Co., H. B.....	107
G		Silvey Pipe Bender Co.....	113
Garland Mfg. Co.....	100	Sorgel Electric Co.....	103
General Cable Corp.....	59	Standard Transformer Co.....	107
General Electric Co.....	32, 95	Steel & Tubes, Inc.....	42
General Electric Supply Corp.....	87	Steel City Electric Co.....	75
Greenlee Tool Co.....	92	Surges Electric Co.....	98
H		T	
Hart & Hegeman Division.....	69	Thomas & Betts Co., The.....	104
Heiss Hotel System.....	104	Trico Fuse Mfg. Co.....	25
Henderson-Hazel Corp.....	97	U	
Holtzer-Cabot Electric Co.....	106	Union Metal Mfg. Co.....	82
Hubbell, Inc., Harvey.....	Inside front cover	United States Rubber Co.....	77
I		W	
Ideal Commutator Dresser Co.....	101	Wadsworth Electric Mfg. Co., Inc..	90
Illinois Electric Porcelain Co.....	102	Wagner Electric Corp.....	66
J		Wakefield Brass Co., F. W.....	68
Jackson Electrical Co.....	113	Weber Electric Co.....	114
Jefferson Electric Co.....	31	Western Wire Products Co.....	108
Jiffy Wire Connector Co.....	100	Westinghouse Lamp Co.....	76
K		Wiremold Co., The.....	108
Killark Electric Mfg. Co.....	86	Wurdack Electric Mfg. Co., Wm..	89
Klein & Sons, M.....	106	Y	
Kliegl Bros.....	98	Yaxley Mfg. Co.....	29
Knox Porcelain Corp.....	113	Youngstown Sheet & Tube Co....	91
Koch & Co., Paul W.....	109	L	
L		Liberty Bell Mfg. Co.....	94
Liberty Bell Mfg. Co.....	94	Lidseen, Inc., Gustave.....	102
Lidseen, Inc., Gustave.....	102	M	



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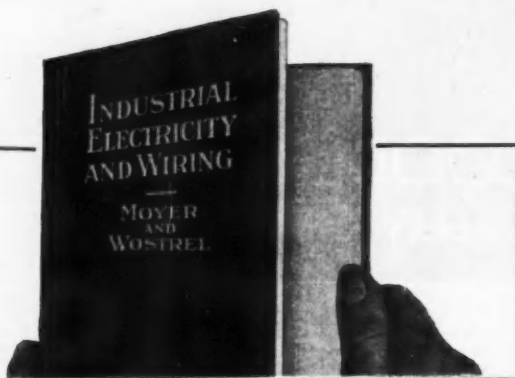
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